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Financial Position Assessment of HUAWEI Company

Zhodnocení finanční pozice společnosti HUAWEI

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3. Profile of HUAWEI Company
4. Financial Analysis of the Company
5. Conclusion

Bibliography
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List of Annexes
Annexes

References:

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"Herewith I declare that I elaborated the entire thesis, including all annexes, independently."

In Ostrava ..6.5.2016

.....Xinyi Xie.....

Xinyi Xie

Content

1. Introduction

Financial analysis is a kind of economic management activity that based on accounting data and other relevant information, using a series of specialized techniques and methods of analysis to analyze the profitability, solvency, liquidity and activity ability of companies or other economic organizations. It is very important because we need to evaluate company's operations, expenses management, credit policy and creditworthiness with the process of selecting, evaluating and interpreting financial data. The aim of using it is formulating the assessment of the company's present and future financial position. In a word, the purpose of financial analysis is the ultimate goal of financial analysis, which is to provide a reliable basis for users of financial statements to make right decisions.

The aim of submitting bachelor thesis is provided the financial analysis of Huawei Company during 2009 to 2014 period.

The reason that I choose Huawei Company as my subject on financial analysis is that Huawei Company is a very famous communications technology company in China and the industrial of smart phone has very close connection with people's standard of living. Through financial analysis of Huawei Company, we can get a general ideal about why Huawei Company can perform well during 6 years. This thesis will be divided into 5 chapters.

The main sources of financial information are the balance sheet statement, the income statement during period 2009 to 2014 of Huawei Company. The financial analysis of Huawei Company is based on evaluating company and industry data from various sources.

In chapter 2, there are five main parts of this chapter, users of financial analysis, description on balance sheet, income statement and cash flow statement, description on common size analysis and financial ratio analysis, and description on pyramidal

decomposition of return on equity. There are three methods of financial analysis used in this thesis, which will be described in detail.

In chapter 3, the general idea about the product and service, organization structure, branch of company, research and development will be presented. Through this chapter, the image of what Huawei Company looks like will appear.

Chapter 4 is the most important part of this thesis, data from the balance sheet and income statement from period 2009 to 2014 of Huawei Company will be used. Common size analysis, financial ratios, pyramidal decomposition of return on equity will be combined with the data to provide us with the more concrete idea about the financial trend of Huawei Company.

In chapter 5, the general conclusion will be drew about what Huawei Company's development is, which aspects still need to be improved, how can Huawei Company develop well in the future.

2. Description of the financial analysis methodology

In this part, we will explain users of financial analysis, common-size analysis and financial ratio analysis. At the same time, we will introduce three main financial statements: balance sheet, income statement and cash flow statement.

2.1 Definition of Financial Analysis

Financial analysis and accounting are based on the accounting data and other relevant information, using a series of specific analysis techniques and methods to analyze whether an entity is stable, solvent, liquid, or profitable enough to be invested in. It is an economic subject for business investors, creditors, business operators and other organizations which is interested in enterprises or individuals to understand the past situations of enterprises, evaluate the enterprises' status, predict the future of the enterprises. In a word, it provides accurate information or application for the enterprises to make the right business decisions.

When we refer to a specific company, the financial analysis always focus on the three typical financial statements: income statement, balance sheet, and cash flow statement. In addition, one key point of financial analysis involves understanding the company's past performance while make an estimate of the company's future performance (Fabozzi, 2006).

Financial analysis, here we can also name it as the financial statement analysis or accounting analysis or analysis of finance. There are many methods and tools of financial analysis. The specific application should be based on the purpose of the analyst. It refers to an assessment of the viability, stability and profitability of a business, sub-business or project. It is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and

other reports. These reports are usually presented to the top management as one of their bases in making business decisions.

Financial analysts often include the following contents of a firm:

1) *Working Capital Analysis*: Forecasting and overseeing cash flow and the use of funds of the company according to the company's business strategy and financial system. Helping to provide information and decision support for the company's financial operations, scheduling and co-ordination;

2) *Financial Policy Analysis:* According to each financial statements, analysis and forecast the profits and risks of the company. Providing advices for the development of business, establishing and adjusting systems of financial management policies of the company;

3) *Management Analysis:* involved in the financial forecasting, budget execution analysis, performance analysis of sales and production, proposing professional analysis and recommendations, providing professional financial support to business decisions;

4) *Investment and financing management Analysis:* participate in financial estimates, cost analysis, sensitivity analysis and other activities of the investment and financing projects, cooperate with the development of investment and financing programs which are set by the higher-ups, to prevent risks so that maximize the benefits of the company;

5) *Financial Analysis Report:* In accordance with financial management policies and needs of business development, writing financial analysis, investment financial research reports, feasibility study reports. Providing analytical support for the company's financial decisions.

2.2 User of financial analysis

The subject users of financial analysis, including the equity investors, creditors, managers, government agencies and other parties which will always refer to

stakeholders of the enterprise. They use financial statements for different purposes and they require different information and applicate different analytical procedures, (Fabozzi, 2006)

· *Investors*

Investors refers to a company's equity investors that called common shareholders. The aim of common shareholders investing in the company is to expand their wealth. What they care about include solvency, profitability and risk, etc.

Equity investor are involved in financial analysis, in order to answer the questions of the following aspects:

1) The current and the future benefit level of the company, and whether corporation's earnings are susceptible to significant changes;
2) How the financial situation is and how the risks and rewards of the company that is influenced by capital structure are;
3) Compared with other competitors, the company is in what position now.

· *Creditor*

Creditor refers to the people who lending to companies and also obtain repayment commitments by the companies. Creditors are cared about whether a company has the ability to repay the debt. Creditors can be divided into short-term creditors and long-term creditors. The main decision of creditor is to decide whether provide credit to businesses, and whether need to call in the debt in advance. They performed financial statement analysis to answer the following questions:

1) Why does the company need to raise additional funds;
2) What possible sources of funds is required for debt service of company;
3) Whether the company repay the earlier short-term and long-term borrowings;
4) Which areas does company need to make a loan.

· *Managers*

Fridson (2011) states that managers mean a group that is consist of individuals who are employed by owners and manage the assets and liabilities of the company, sometimes we called the "regulatory authorities." Managers are concerned with the company's financial condition, profitability and capacity for sustained development. Managers can obtain inside information which cannot be used by the outside people. The main purpose of them to analyze the statement is to improve the statement.

· *Government agencies*

Government agencies are also users of the company's financial statements, including the tax authorities, state-owned enterprises management regulators, securities regulators, accounting regulatory and social security sector. They use financial statements in order to fulfill their supervisory duties.

· *Others*

Others: such as workers, intermediaries (auditors, consultants) etc. The auditors can determine the key point of audit by financial analysis. The gradually expand of the field of financial analysis are related to development of consulting industry. “Financial analyst” has become a profession in some countries, they offer professional advice for all types of users of financial analysis.

The object users of financial analysis are the basic activities of enterprises. On this hand, financial analysis is to get the information that meet the purpose of users by the financial statements, understanding the characteristics of business activities, assessing its performance and finding their problems.

The basic activities of the enterprise are divided into three categories: financing activities, investment activities and business activities, (Fridson, 2011)

· *Financing activities:* refer to raising the funds that needed by financing and investment of the company, including the issuance of stocks and bonds, gain the borrowings and utilize the internal accumulative funds;

· *Investment activities:* refer to allocate to the project of assets with the raising funds, including the acquisition of various long-term assets and liquid assets. Investment is the most important part of basic activities of the corporation;

· *Business activities:* are the activities which earn profit with the use of assets under the circumstance of the necessary financing and investment, which includes at least research and development, procurement, production, sales and human resources management and other five events. Business activities are the main sources of corporate profits.

Three basic activities of enterprises are interconnected. When refers to the performance evaluation, they should not be separated. The beginning of financial analysis is to read financial statements, the end is to make some kind of judgment (including the comments and identify issues), the middle process of financial statement analysis is consist of comparison, classification, analogy, induction, deduction, analysis and synthesis, etc. In which analysis and synthesis are two basic logical thinking methods. Thus, the process of financial analysis can also be said as a unity of analysis and synthesis.

2.3 Financial Statements

Financial statements are important that they can evaluate the financial status of a company. An accountant is showed by several duties, like profit and loss analysis, oversee management abilities and behaviors, and prepare financial statements.

A financial statement (or financial report) is a formal record of the financial activities and position of a business, person, or other entity. Relevant financial information is presented in a structured manner and in a form easy to understand. There are three basic financial statements summarizing information about a company, (Fridson, 2011)

· *Balance sheet:* also referred to as a statement of financial position, summarize the assets liabilities, and ownership equity of a company, the value of these assets and the mix of financing used to finance these assets at a given point in time.

· *Income statement (profit/loss statement, P/L statement):* provides information on the revenues and costs of the company and resulting profit or loss during a particular period.

· *Cash flow statement:* the sources of cash to the company from its operating, investing and financing activities and usage of these cash flows during a particular period.

In this part, we will continue to introduce the balance sheet, income statement and cash flow statement.

2.3.1 Balance sheet

Fabozzi (2006) states: A condensed statement that shows the financial position of an entity on a specified date (usually the last day of an accounting period).

Among other items of information, a balance sheet states: what assets the entity owns, how it paid for them, what it owes (its liabilities), and what is the amount left after satisfying the liabilities. Balance sheet data is based on a fundamental accounting equation (2.1), and is classified under subheadings such as current assets, fixed assets, current liabilities, long-term Liabilities.

The purpose of the balance sheet is to report the financial position (amount of assets, liabilities, and stockholders' equity) of an accounting entity at a particular point in time. Balance sheet as a kind of financial statement, it is very important to the accounting, the most important function is to show operating conditions of the enterprise. We can learn a great deal about what the balance sheet reports just by reading the statement from the top to the bottom, (Helfert, 2001).

Assets of a company: assets are generated either by purchase (investing activities), business activities (operating activities) or financing activities. Assets can be classified by two types:

- *Fixed assets;*
- *Short-term assets (current assets)*-(inventories, receivables, goods, cash, etc.).

Fixed assets include long-term assets, they are relatively long life and relatively low liquidity. The categorization is as follows:

- *Tangible assets* (equipment, land, building, etc.);
- *Intangible assets* (trademark, patents, goodwill, etc.);
- *Financial investments* (investments in securities and assets of other firms-shares, bonds, etc.).

Current assets include short-term assets, they are relatively short life and relatively

high liquidity (in the form of cash or can be relatively quickly converted into cash.).The categorization is as follows:

- *Receivables* (represent money owed the firm by individuals or by other firms on the sale of products/goods on credit);
- *Inventories* (raw material, goods for sale held by a firm for eventual sale, etc.);
- *Cash and cash equivalents* (short-term tradeable securities).

Equity and liabilities of a company is the mix of capital for financing of company's assets. Equity represents the shareholder's investment or capital belonging to the owners or shareholders of the company. Its contribution are by the owners (by buying shares) or by company's profit. Total equity can be classified as the sum of common shares, sum of preferred shares, retained profits, profit of the current year.

Liabilities represents money (capital), which has been borrowed and must be repaid back at some predetermined date. Or we can easily define it as the source of capital provided by creditors. The categorization is as follows, (Dluhosova, 2014)

· *Current(short-term) liabilities* includes borrowed money that must be paid back within 12 months:

- Accounts payables (credit extended by suppliers to a company when it purchases inventories);
- Accrued expenses (short-term liabilities but not yet paid);
- Short-term notes (money borrowed from a bank payable within 12 months)

· *Long-term liabilities:*

- Includes money that has been borrowed for longer than 12 months;
- Include loans from banks, issued bonds, etc.

From above definition follows this formula:

$$Total\ assets = total\ liabilities + total\ equity \qquad (2.1)$$

Since each asset must have a source of financing, a company's assets must, by definition, equal the combined total of its liabilities and stockholders' equity.

2.3.2 The Income Statement

Income statement indicates the amount of profit generated by a company over a certain period, often a year, compares the company's revenues and company costs. The basic equation underlying the income statement is: (Wajdová, 2014)

$$Revenues - cost = net\ income/loss \qquad (2.2)$$

· *Revenues:* amounts charged for the delivery of goods or services in the ordinary activities of the company;

· *Cost:* amounts that must be spent in the ordinary activities of the company.

These two main subtotals are calculated as follows:

- Operating activity (calculated as a different between the sum of operating revenues and operating costs);
- Financing activity (calculated as a difference between the sum of financing revenues and financing costs).

Operating activity sometimes called operating profit before interest and tax-*EBIT*. Operating revenues are revenues from sale of products, goods and services. Operating costs are costs associated with generating operating revenues (raw material consumption, electricity consumption, depreciations, costs of goods sold, salaries and wages paid to employees, administrative cost and other operating costs).

Dluhosova (2015) states: Financial activities let financial revenues and financial costs compared here. Financial revenues are interest received, revenues from owned securities (dividend received, coupons received. etc.). Financial costs are interests paid, coupon paid (if bonds are issued), etc.

Sum of operating and financing income = profit before taxes (EBT) *(2.3)*

$$T = EBT \cdot t \qquad (2.4)$$

where T means company's tax, EBT is earning before taxes and t means corporate tax rate

Resulting number: *profit after tax*

We can divide the income statement into two parts, the first one is the operating part and the second part is non-operating part. The aim of analyzing the income statement is to reveal a company's management to creditors and investors whether the company earn or lost money over a certain accounting period. The income statement is based on income - costs = profit to prepare the basic relationship. From the perspective of capital

movements reflect the business perspective, it is a reflection of the financial statements which shows the dynamic performance of the company, the main provider of the operating results of the relevant aspects of company performance. Operating results of both a certain accounting period may appear to be profitable, and also may appear to be a loss. Here is the example of an income statement is shown in Table 2.1

Table 2.1 Example of the income statement

Income statement	
Revenues	
Cost	
Operating costs	
Business tax and surcharges	**The total profit(EBIT)**
Selling costs	**Interests**
Administrative costs	**EBT**
Finance costs	**Income tax**
Impairment of assets	**Net profit(EAT)**

Source: Own elaboration

To sum up, income statement is a summary of a business's performance as reflected in the profitability (or lack of it) of an organization over a certain accounting period. It shows the revenues and expenses of past that led to the current profit or loss, and indicates what managers should be done that can improve the results, (Fabozzi, 2006)

2.3.3 Statement of Cash Flows

Cash flow statement provides information about company's cash inflows and cash outflows during a period, often a year. In which inflows shows the amount of money received during a period, outflows shows the amount of money spent during a period.

The basic formulas are as follows:

$$\textit{Net cash flow} = \textit{sum of inflows} - \textit{sum of outflows} \qquad (2.5)$$

$$\textit{Cash at the end} = \textit{cash at the beginning} + (-)\ \textit{net cash flow} \qquad (2.6)$$

But there is a fundamental problem is that:

$$Income\ \ statement\ \neq cash\ \ flow \qquad (2.7)$$

Income statement is calculated on the accrual basis (accounting). In which revenues are recorded when they are earned, regardless the money have been received. Costs are recorded when they incurred, even if the money has not been paid out. Let's talk about a simple case:

· *Revenues in income statement* – include cash revenues and credit revenues. These revenues don't correspond exactly to the actual cash inflows collected from sales.

· *Purchase of equipment* – not shown as a cost in income statement, but this outflow is recorded in C-F statement. Only part of the equipment value appears in the income statement – in the form of depreciation.

· *Credit acceptance* – no record in income statement e.g. no revenue but recorded as cash inflow.

· Profit is not the same as the cash flow.

Resulting situations:

Table 2. 2 cash flow statement compares with income statement

Situation	Income statement	Cash Flow statement
1	Profit	Positive CF
2	Profit	Negative CF
3	Loss	Positive CF
4	Loss	Negative CF

Source: Adapted from Dluhosova (2015)

In conclusion, company can be profitable, but also can go bankrupt (no cash), (Dluhosova, 2015)

The categorization of the cash flows is as follows:

Cash flow from operating activities

- Includes inflows and outflows from day-to-day company's activities;
- *Cash inflows*-cash sales of goods, products or services, collection of receivables, etc.;
- *Cash outflows*-cash payments for inventory, salary and wages payments, taxes, paying payables, etc.

Cash flow from investing activities

- Includes inflows and outflows as a result of selling and purchasing of investments;
- Investments include tangible assets (property, equipment, plant, etc.), intangible assets (know-how, patents, etc.) and long-term investments in the shares and bonds.

Cash flow from financing activities

- Include inflows and outflows from obtaining and repaying capital (equity and long-term debt);
- *Cash inflows*-cash from issuing shares (common and preferred) or bonds and cash from credits and borrowings;
- *Cash outflows*-paying out dividends, repaying bonds, repaying credits and borrowings.

$$Total\ cash\ flow = cash\ flow\ from\ operating\ activities + cash\ flow\ from\ investing\ activities + cash\ flow\ from\ financing \quad (2.8)$$

Wajdova (2014) states that formats of reporting cash flow from operating activities are direct method and indirect method. Both methods provide identical cash flow, only the format of the calculation is different. Format of cash flow calculation from investing and financing activities is exactly the same.

· *Direct method*: eliminates any impact of accruals and shows only cash payments in the form of inflows and outflows;

· *Indirect method*: cash flow from operating are obtained from reported income statement after a series of adjustments:

- Net profit/loss (*EAT*) is adjusted by non-cash components
- Changes in net working capital (activities which are not included in Income statement) but have an impact on cash flows in operating activities.

2.3.4 Relationships among the Statements

Our discussion of the four basic financial statements focused on what elements are reported in each statement, how the elements are related by the equation for each statement, and how the elements are important to the decisions of investors, creditors, and others. We have also discovered how the statements, all of which are outputs from the same system, are related to one another. In particular, Fridson (2011) states that:

1) Net income from the income statement results in an increase in ending retained earnings on the statement of retained earnings;
2) Ending retained earnings from the statement of retained earnings is one of the two components of stockholders' equity on the balance sheet;
3) The change in cash on the cash flow statement added to the beginning-of-the-year balance in cash equals the end-of-year balance in cash on the balance sheet.

Thus, we can think of the income statement as explaining, through the statement of retained earnings, how the operations of the company improved or harmed the financial position of the company during the year. The cash flow statement explains how the operating, investing, and financing activities of the company affected the cash balance on the balance sheet during the year.

2.4 Common size analysis

Financial analysis is the process of selecting, evaluating and interpreting financial data. It aims at formulating the assessment of the company's present and future financial position (or we can say it "financial health"). The result of the financial analysis are for internal needs and external needs.

Source of information for financial analysis:

- *Financial data* (from balance. P/L, CF, etc.);
- *Market data* (securities prices, industry statistics, etc.);
- *Economic data* (GDP, producer price index, consumer price index etc.)

Methods can be divided into five groups:

· *Common-size analysis*: (horizontal, vertical);
· *Financial ratio analysis*
· *Pyramidal decompositions and influence quantification;*
· *Credit method*

Common-size analysis is the analysis of financial statement data and their changes over the time, aims at identifying the trends and major differences. Using common-size analysis makes it easier to analyze a company over time from financial statements. It can be divided into two types: horizontal common-size analysis and vertical common-size analysis.

Robinson (2008) states common-size analysis involves expressing financial data, including entire financial statements, in relation to a single financial statement item, or base. Items used most frequently as the bases are total assets or revenue. In essence, common-size analysis creates a ratio between every financial statement item and the base item.

2.4.1 Vertical common-size analysis

Vertical common-size analysis is an analysis of the changes in the proportions of selected benchmarks (total revenues, total assets, total liabilities, etc.). Vertical analysis is more focused on internal structure analysis from each internal reporting projects. It's kind of a vertical analysis for the income statement, balance sheet and cash flow statement. All items in the income statement as a percentage of revenue, the balance sheet items are expressed as a percentage of total assets and the cash flow statement items are expressed as a percentage of total net cash flow.

The steps of vertical analysis are as follows. First, calculate the proportion of each item in the table population. Second, determine the ratio of the project occupy how many positions in the report, and analyze how important it is. Third, compare the ratio of base period with the previous year's proportion data, observe the trend of changes. Here we can see the example of vertical common-size analysis in Table 2.3 as follows:

Table 2.3 Example of vertical common-size analysis for balance sheet

	2009	2010	2011	2012	2013	2014
Total liabilities	68.98%	65.65%	47.60%	47.00%	43.77%	46.73%
Total owners' equity	31.02%	34.35%	52.40%	53.00%	56.23%	53.27%
Total liabilities and owners' equity	100%	100%	100%	100%	100%	100%

Source: Own elaboration

By observing the proportion of items, analyze the importance of each item in the business operation. Usually the larger the proportion of the project, the higher the level of importance, the greater the impact on the population.

2.4.2 Horizontal common-size analysis

Horizontal common-size analysis is an analysis of the evolution of financial statements data over the time or their changes with respect to a given period as a benchmark. In financial analysis, horizontal common-size analysis also called rend

analysis, usually refers to comparisons through the time periods of 3 to 10 years not involving statistical tools, (Robinson, 2008).

Horizontal analysis can determine the main cause of changes in the company's financial position and operating results, determine whether the trends of company's financial condition and operating results to investors is favorable and forecast the future development of the company. This method of analysis is a kind of dynamic analysis, which is based on the balance analysis and ratio analysis, while can effectively compensate for its shortcomings. Here we can see the example of horizontal common-size analysis in Table 2.4

Table 2.4 Example of horizontal common-size analysis for balance sheet over two period

Assets	Changes from 2009 to 2010		2010-2011	
	Absolute (*CNY*)	Relative (%)	Absolute (*CNY*)	Relative (%)
Total assets	21,188	15.20%	66,079	41%
Current assets	18,161	15.00%	57,003	40%
Fixed assets	3,027	20.10%	9,076	50%

Source: Own elaboration; unit: thousand yuan

From this chart we can see that trend analysis provides important information about the current absolute or relative levels of the present and historical performance. We can see the growth in period 2 (2010-2011) with each kinds of assets but especially the fixed assets. It shows the company has more and more equipment, property and plants. One significant change is the huge growth in total assets, it shows company done a good job during those years.

2.5 Financial ratio analysis

Robinson (2008) states: A financial ratio is a relative size of two selected mathematical values taken from a company's financial statements. It is the comparison of financial data in the form of financial ratios to assess the financial health of the company, which is often used in accounting, there are many standard ratios used to try

to assess the overall financial condition of a company or other organization. Examples include such often referred to measures as return on investment (*ROI*), return on assets *(ROA)*, and debt-to-equity, to name just three. These ratios are the result of dividing one account balance or financial measurement with another. Usually these measurements or account balances are found on one of the company's financial statements—balance sheet, income statement, cash flow statement. They are calculated from financial data and market data, among which relationship (i.e. the ratio has some economical interpretation). Financial ratios may be used by managers within a firm by current and potential shareholders (owners) of a company, and also by a firm's creditors.

1.5.1 Accounting methods and principles:

Mahipal (2011) states that financial ratios may not be directly comparable between companies that use different accounting methods or follow various standard accounting practices. Most public companies are required by law to use generally accepted the accounting principles for their home countries, but on the opposite side, private companies, partnerships and sole proprietorships may not use accrual basis accounting.

1) Large multi-national corporations may use International Financial Reporting Standards to produce their financial statements, or they may use the generally accepted accounting principles of their home country.
2) There is no international standard for calculating the summary data presented in all financial statements, and the terminology is not always consistent between companies, industries, countries and time periods.

Financial analysis use financial ratios to compare the strengths and weaknesses in different companies. If shares in a company are traded in a financial market, the market price of the shares is used in certain financial ratios. Ratios generally are not useful unless they are benchmarked against something else, like past performance or another company. Thus, the ratios of firms in different industries, which face different risks, capital requirements, and competition are usually hard to compare.

Here is the groups of financial ratios:

1) *Profitability ratios*: analyze the company's ability to generate profit from invested capital;
2) *Liquidity ratios*: measure company's ability to meets its immediate and short-term obligation;
3) *Solvency ratios:* measure company's ability to meets its long-term obligations
4) *Activity ratios:* measure the efficiency of assets usage (measure a firm's ability to convert different accounts within their balance sheets into cash or sales.)

It is important to keep in mind that financial ratios are time sensitive; they can only present a picture of the business at the time that the underlying figures were prepared. For example, a retailer calculating ratios before and after the Christmas season would get very different results. In addition, ratios can be misleading when taken singly, though they can be quite valuable when a small business tracks them over time or uses them as a basis for comparison against company goals or industry standards.

Ratios can be expressed as a decimal value, such as 0.10, or given as an equivalent percent value, such as 10%. Some ratios are usually quoted as percentages, especially ratios that are usually or always less than 1, such as earnings yield, while others are usually quoted as decimal numbers, especially ratios that are usually more than 1, such as P/E ratio; these latter are also called multiples. Given any ratio, one can take its reciprocal; if the ratio was above 1, the reciprocal will be below 1, and conversely. The reciprocal expresses the same information, but may be more understandable: for instance, the earnings yield can be compared with bond yields, while the P/E ratio cannot be: for example, a P/E ratio of 20 corresponds to an earnings yield of 5%, (Robinson, 2008)

We cover each type of ratio, providing examples of ratios that fall into each of these classifications.

2.5.2 Profitability ratios

Profitability ratios measure the ability to generate profit from invested capital in the form of return during a period. (In %), the higher the profitability ratios, the better competitive position of the company.

Basic ratios:

$$Gross\ margin = \frac{gross\ \ profit}{net\ \ sales} \tag{2.9}$$

Gross margin equals to company's total sales revenue minus its cost of goods sold which derives gross profit, then divided by the net sales revenue, expressed as a percentage. The gross margin represents the percent of total sales revenue that the company keeps after incurring the direct costs which are consist of producing the goods and services sold by a company. If the margin is not sufficient to compensate for distribution costs and taxes, there will be a loss happens to the company. The higher the percentage, the more the company keeps on each dollar of sales to meet the needs of its other costs and obligations. The formula for operating profit margin is as follows:

$$Operating\ profit\ margin = \frac{operating\ \ \ income}{net\ \ sales} \tag{2.10}$$

Operating profit margin indicates how well the company manages its operations, i.e. how well the revenues are being generated and operating costs controlled. It measures operating profit per one unit of revenues. The operating profit margin gives the enterprises owner a lot of important information about the company's profitability, especially with regard to control costs to make profits. It shows how much cash is spent out after most of the expenses are met. A higher operating profit margin means that the company has good ability of cost control or sales are increasing faster than costs, which is the optimal condition for the business owner. The formula for net profit margin is as follows:

$$Net\ profit\ margin = \frac{net\ \ profit}{net\ \ sales} \tag{2.11}$$

Net profit margin measures net profit (as a percentage) per one unit of revenues. When we making a simple profitability ratio analysis, net profit margin is the most often used margin ratio. The net profit margin shows that after all expenses are paid, how much of each sales dollar will shows up as net profit. For example, if the net profit margin is 3%, it means that 3 percent of every dollar is profit. The net profit margin measures profitability after utilize of all expenses including the taxes, interests, and depreciation. The calculation is showed in equation (2.11). Both terms of the calculation come from the income statement. The formula for return on equity is as follows:

$$Return\ on\ equity = \frac{net\quad income}{average\quad shareholde\,rs\quad equity} \tag{2.12}$$

Return on equity measures a firm's efficiency at generating profits from every unit of shareholders' equity. It is might be the most important of all the financial ratios to creditors and investors in the company. It measures the return on the money that the creditors and investors have put into the company. This is the potential requirement of investors considering when deciding whether or not to invest in the company. Net income comes from the income statement and stockholder's equity comes from the balance sheet. In general, the higher the percentage, the better as it shows that the company is doing a good job while handling the investors' money. But there are also some exceptions exist in a sense. The formula for return on assets is as follows:

$$Return\ on\ assets\ \ = \frac{net\ income}{total\ \ assets} \tag{2.13}$$

Return on assets measures net profit (or operating profit) as a percentage for every unit of company's assets. It is an important profitability ratio because it shows the efficiency with which the company is managing its investment in company's assets and using them to generate profit. Mahipal (2011) states: Return on assets measures the

amount of profit earned relative to the firm's level of investment in total assets. Net Income is taken from the income statement and total assets is taken from the balance sheet. In general, companies can use this ratio to compare to the rate of market capitalization. If the ratio is greater than the market rate, it means that enterprises can make full use of financial leverage to carry out liability operating so that can get as much revenue as possible. The higher the percentage, the better, the company is doing a good job while using its assets to generate profits. The formula for return on assets Du Pont is as follows:

$$Return\ on\ assets\ Du\ Pont = \left(\frac{net\ income}{net\ sales}\right)\left(\frac{net\ sales}{total\ assets}\right) \tag{2.14}$$

The return on assets (ROA) ratio developed by DuPont for its own use is now used by many companies to evaluate how effectively assets are used. It measures the related effects of asset turnover and profit margins. The formula for return on net assets is as follows:

$$Return\ on\ net\ assets = \frac{net\ income}{fixed\ assets + working\ capital} \tag{2.15}$$

Return on net assets (RONA) is a measure of financial performance. In the formula, we can see two elements in the denominator. Fixed assets are tangible assets which used in production, such as real machine and estate. Net working capital is calculated by company's current assets minus its current liabilities. The higher the index, the better the profit performance of the company. Individually, no single calculation tells the whole condition of a company's performance, and return on net assets is just one of many ratios that can be used to evaluate a company's business performance. The formula for return on capital is as follows:

$$Return\ on\ capital = \frac{EBIT(1 - tax\ rate)}{invested\ \ capital} \tag{2.16}$$

where *EBIT* is earning before interest tax.

Return of capital is a return from an investment that is not considered as an income. The return of capital is when some or all of the money that an investor has put into an investment which is paid back to him or her, thus decreasing the value of the investment. Why we said this is not considered as an investment gain of each type because it won't exceed the original investment. Investors are not asking for being taxed on this return until it begins to exceed their original investment value. The formula for return on capital employed is as follows:

$$Return\ on\ capital\ employed = \frac{EBIT}{capital \quad employed} \tag{2.17}$$

where *EBIT* is earning before interest tax.

Return on capital employed is a financial ratio that evaluates a company's ability of profitability and the efficiency with which its capital is employed. It is calculated as the equation (2.17). "Capital Employed" as shown in the denominator is equal to shareholders' equity plus debt liabilities. It can be simplified as total assets minus current liabilities. Instead of using capital employed at any point in time, creditors and investors often calculate *ROCE* based on "Average Capital Employed," which takes the average of opening and closing capital employed during a period of time.

A higher return on capital employed indicates the capital of the company is used more efficient. In general, *ROCE* should be higher than the company's capital cost, otherwise it means that the company didn't perform well in the past time. It is not employing its capital effectively and doesn't generate shareholder value.

2.5.3 Liquidity ratios

Liquidity ratios measure the availability of cash to pay debt. They analyze company's liquid assets (in the form of cash or can be quickly converted in cash) and short-term liabilities and obligations. Liquidity of company means the ability to have cash available when needed to meet its short-term obligation. The main liquidity ratios are current ratio, quick ratio and cash ratio. Now we will continue to introduce.

$$Current\ ratio = \frac{current\quad assets}{current\quad liability} \tag{2.18}$$

Current ratio measures amount of current assets for every unit in current (i.e. short-term) liabilities. In general, the higher the ratio of these two shows liquidity of corporate assets, the stronger the ability of transfer assets into cash, the short-term liquidity is also stronger. Otherwise it will be weak. We generally believed that the current ratio should be 2: 1 or more, the quick ratio should be 1: 1 or more. The current ratio of 2: 1 represents current assets are the twice of current liabilities, even if half of current assets cannot be transferred into cash in the short term, it can also ensure that all current liabilities are repaid. The formula for quick ratio is as follows:

$$Quick\ ratio = \frac{current\ \ assets - inventories}{current\quad liabilities} \tag{2.19}$$

Quick ratio refers to the ratio of quick assets to current liabilities. It is an ability of measuring enterprise to transfer liquid assets into cash immediately to repay current liabilities. Current assets include cash, short-term investments, notes receivable, accounts receivable, can be transferred into cash in a relatively short period of time. Current assets are adjusted for inventories due to the fact, that it is generally less liquid (must be first sold before any cash is collected). The formula for cash ratio is as follows:

$$Cash\ ratio = \frac{cash + marketable\quad sec urities}{current\quad liabilities} \tag{2.20}$$

Cash ratio is a rate by calculating the total amount of cash and cash equivalent assets of the company with the current liabilities to measure the liquidity of the company's assets. It excludes inventories and receivables. Here we work with the assets that are in the form of cash (marketable securities can be sold immediately at the market within a few hours or days).

2.5.3 Solvency (leverage) ratios

Solvency ratios measure company's ability to meets its long-term obligations. Sometimes we call it financial leverage ratios while they measure how the company is financed.

$$Debt\ ratio = \frac{Total\ Liabilities}{Total\ Assets} \tag{2.21}$$

Debt ratio means what percentage (proportion) of the company's assets is financed by debt (liabilities). Debt ratio refers to the relationship between debt and assets, net assets, which reflects the ability of enterprises to pay debt principal and the interest on the debt. The formula for debt to equity ratio is as follows:

$$Debt\ to\ equity\ ratio = \frac{Long\ \ term\ \ Debt + Value\ \ of\ \ Leases\ (total\ \ debt)}{Average\ \ \ Shareholders\ \ \ Equity} \tag{2.22}$$

Debt to equity ratio is a debt ratio used to measure a company's financial leverage, calculated by divided a company's total liabilities by its shareholders' equity. It is similar to debt ratio, relates the amount of the company's debt relative to company's equity. For example, if debt-to-equity ratio is higher than one, the company uses more debt for assets financing than equity. The formula for interest coverage is as follows:

$$Interest\ Coverage\ Ratio = \frac{EBIT}{Interest\ \ paid} \quad \text{or} \quad \frac{Net\ \ Income}{Interest\ \ paid} \tag{2.23}$$

Interest coverage ratio is a debt ratio and profitability ratio that used to measure how easily a company can pay interest on obviously debt. The interest coverage ratio may be calculated by dividing a company's earnings before interest and taxes during a given period by the amount a company must pay in interest on its debts that during the same period. It tells the extension to which the company's operating profit is able to meet current interest payments. For example, if *IC* is 5 then 20% (i.e.1/5) of company's operating profit is consumed by interest paid. The lower a company's interest coverage ratio is, the more its debt expenses burden the company. The formula for debt-to-capital is as follows:

$$Debt\text{-}To\text{-}Capital\ ratio = \frac{Debt}{Shareholders'\ equity + debt} \tag{2.24}$$

Debt-to-capital ratio is a method that measures company's financial leverage, and it calculated as the company's debt divided by its total capital (equals to shareholders' equity plus debt). Debt includes all short-term and long-term obligations. Total capital includes the company's debt and shareholders' equity, which includes preferred stock, common stock, minority interest and net debt. The debt-to-capital ratio gives users a recommend of a company's financial system, or how it is financing its operations, along with some inter analyze into its financial strength. In general, the higher the debt-to-capital ratio, the more debt the company has compared to its equity.

2.5.4 Activity ratios (Efficiency Ratios)

Activity ratios measure the effectiveness of the firm's use of resources e.g. assets utilization. They indicate how much a company invested in a particular assets related to the revenues that the assets are generating. Assets efficiency utilization has a direct impact on liquidity.

$$(ACP) = \frac{Accounts\ \ Receivable}{Revenues} \cdot 360 \tag{2.25}$$

where ACP is average collection period

The average collection period is the approximate amount of time that it accounts for a business to receive payments owed, in terms of receivables, from its customers and clients. It measures the conversion of accounts receivable into cash. For example, how long (how many days) it takes to collect the company's receivables. Therefore, getting a lower average collection period is seen as an optimal situation, because this means that it does not take a company a long time to transfer its receivables into cash. Finally, every enterprises need cash to pay off its own expenses. The formula of accounts receivable turnover is as follows:

$$Accounts\ receivable\ turnover = \frac{revenues}{accounts\ \ receivables} \tag{2.26}$$

Accounts receivable turnover represents how many times the accounts receivable are "rolled over" during a year. The company's receivables plays a decisive role in current assets. If the company's receivables can be recovered in time, the efficiency of using funds of the company will be able to greatly improve. Accounts receivable turnover ratio shows the average times of accounts receivable being transferred into cash in a certain period. Accounts receivable turnover days is expressed as time, also known as accounts receivable average payback period. It shows the time company needs from obtaining the rights from accounts receivable to recover the money, and transfer into cash. The formula of inventory turnover is as follows:

$$Inventory\ turnover = \frac{costs\ \ of\ \ goods\ \ sold}{average\ \ inventory} \tag{2.27}$$

Inventory turnover is a measure of the number of times inventory is sold or used in a time period such as a year. It is used to reflect the rate of inventory turnover, measure whether it is reasonable about the liquidity of inventory turnover and capital occupancy of inventory. Inventory turnover encourages enterprises to ensure the continuity of production and management, improve capital efficiency, and enhance their short-term

solvency. High inventory degrees are unhealthy because they represent an investment performance with a rate of return of zero. It also lets the company face to trouble should prices begin to fall. The formula of total asset turnover is as follows:

$$Total\ asset\ turnover = \frac{Revenues}{Total\ \ Assets} \tag{2.28}$$

Total assets turnover is an efficiency ratio which tells how successfully the company is using its assets to generate revenue. The total asset turnover ratio is an important indicator to comprehensive evaluate the quality of management and efficiency of utilize all enterprise assets. Higher the turnover, indicating the total asset turnover faster, reflecting the stronger ability of sales. Since higher ratios refer to the company is generating more revenue per dollar of assets. For example *TAT* of 1.5 means each unit invested in assets generates revenues of 1.5. Companies can accelerate the turnover of assets by selling more while obtaining less profit, bringing the increase in the absolute amount of profit. The formulas for day sales outstanding is as follows:

$$DSO\ Ratio = \frac{Accounts\ \ Receivable}{Total\ \ Annual\ \ Sales \div 360\ Days} \tag{2.29}$$

Days sales outstanding is a measure of the average number of days that a company takes to collect revenue after a sale has been made. *DSO* is often determined on a monthly, quarterly or annual basis and can be calculated by dividing the amount of accounts receivable during a given period by the total value of credit sales during the same period, and multiplying the result by the number of days in the period measured. A low *DSO* value means that it takes a company fewer days to collect its accounts receivable. A high *DSO* number shows that a company is selling its product to customers on credit and taking longer to collect money, (Fridson, 2011)

The formulas for inventory conversion ratio is as follows:

$$Inventory\ conversion\ ratio = \frac{365\ Days}{Inventory\ \ Turnover} \tag{2.30}$$

Inventory conversion ratio is a financial measure of a company's performance that gives investors a clearly formula of how long it takes a company to turn its inventory into sales. Generally, the shorter inventory conversion is preferred, but it is important to notice that the average inventory conversion is different from one industry to another.

2.6 Pyramidal decomposition

Pyramidal decomposition enables to analyze what drives the value of financial ratios, like which factors have impact on its value or evolution. The aim is to express selected basic ratio as a product of component ratios. Here we need to introduce influence quantification which enables to analyze indicators, whose change have caused change in the basic ratio and quantify which component ratios contributed to the change in basic ratio at most. There are four methods for quantification of influence:

- Methods of gradual changed;
- Methods of decomposition with surplus;
- Logarithmic decomposition method;
- Functional decomposition method.

Here we only introduce one method. Specifically, it is expressed as *ROE* (return on equity) which is usually broken into three parts: net profit margin, assets turnover, and financial leverage, (Zmeškal, 2015).The formula can be expressed as follows:

$$ROE = \frac{Net\ \ profit}{Equity} = \frac{Net\ \ income}{Revenues} \cdot \frac{Revenues}{Total\ \ Assets} \cdot \frac{Total\ \ assets}{Equity} \tag{2.31}$$

As we can see, this method breaks down return on equity (that is, the returns that investors receive from the company) into three distinct elements. Profitability is

measured by profit margin, operating efficiency is measured by asset turnover, and financial leverage is measured by equity multiplier.

Also, net profit margin can be broken into three parts: tax burden, interest burden and operating margin. If we want to separate the effects of taxes and interest, we can decompose the profit margin as follows:

$$\frac{Net\ \ income}{Revenues} = \frac{Net\ \ income}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{Revenues} \tag{2.32}$$

where EBT means earnings before tax, EBIT means earnings before interests and tax.

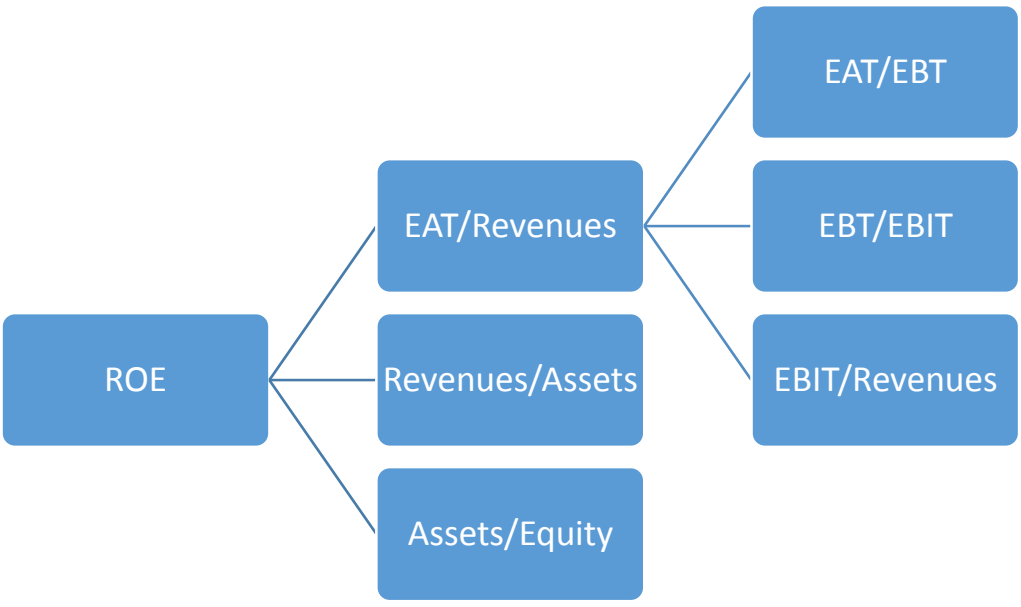
So after substitution into pyramidal decomposition of return on equity analysis, we get a new formula as follows:

$$\text{ROE}=\frac{Net\ \ income}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{Revenues} \cdot \frac{Revenues}{Total\ \ Assets} \cdot \frac{Total\ \ assets}{Equity} \tag{2.33}$$

where *EBT* means earnings before tax, *EBIT* means earnings before interests and tax.

According to this equation we can also get a graph as follows:

Graph 2.1 Pyramidal Decomposition of Return on Equity



Source: Own elaboration

2.6.1 Method of gradual changes

Method of gradual change enables to quantify the change in the basic ratio caused by the change in the component ratio. Usually it will be decomposed into three component ratios as follows:

$$\begin{aligned} \Delta xa_1 &= \Delta a_1 \cdot a_{2.0} \cdot a_{3.0} \\ \Delta xa_2 &= a_{1.1} \cdot \Delta a_2 \cdot a_{3.0} \\ \Delta xa3 &= a_{1.1} \cdot a_{2.1} \cdot \Delta a_3 \end{aligned} \tag{2.34}$$

As we can see, x means basic ratio, Δx means absolute change in basic ratio, a means component ratio, Δa means absolute change in in the component ratio, Δx_{ai} means absolute change in the basic ratio caused by the change in the first component ratio.

3. Profile of Huawei Company

Huawei Technologies Co., Ltd. is an employee-owned private technology company which sales telecommunications equipment. It’s headquartered in Shenzhen, Guangdong Province, which was found here in 1987 by Ren Zhengfei. The registered capital is 21,000 yuan. Huawei is the world's largest telecommunications network solutions provider, the world's second largest telecom base station equipment supplier, as well as the world's largest supplier of communications equipment, the world's fourth largest smartphone vendor, and also a leading global information and communications solutions provider . Huawei's products are mainly related in switching network, transmission network, fixed wireless and wireline access networks, data communication networks and wireless terminal products which is involved in a communication network, providing the services and professional solutions about hardware, software equipment for the worldwide communications operators and network owners.

According to the marketing research report by firm Dell'Oro's , Huawei won the world's first commercial LTE network beyond the Alcatel - Lucent and Nokia - Siemens, becoming the world's second-largest telecommunications equipment manufacturers, in 2009.What’s more, the contract with Norwegian 4G mobile network shocked the whole industry.

It commits to creating maximum value for telecom operators, companies and consumers by providing competitive solutions and services. Its products and solutions have been sold over 140 countries, serving more than one third of the world’s population.

3.1 Product

Huawei's mission is to enrich life through communication. By leveraging their experience in the ICT sector, they help bridge the digital divide by providing

opportunities to enjoy broadband services, regardless of geographic location. Contributing to the sustainable development of the society, economy, and the environment, Huawei creates green solutions that enable customers to reduce power consumption, carbon emissions and resource costs.

During 2010, Huawei achieved sales revenue of 185.2 billion yuan. A year-on-year increase of 24.2%.This development was mainly driven by significant growth among the overseas markets. Also includes the rapidly and balanced development of the Telecom Networks.

After three years practicing, Huawei's terminal products transition achieve a significant results from low to high. And the channel has been shifted thoughts from operators to electricity suppliers to other opening channels. Flagship not only increased the average selling price dramatically, the number and width of sales are particularly obvious. Take the main high-end products as an example. Till September, 2014, the global shipments of Huawei Ascend P7 were 3 million, covering nearly 110 countries and areas. At the same time, the global shipments of Huawei Ascend P6 has reached 5 million, covering Europe, the Middle East, Africa, Latin America and other 120 countries. As for the Huawei Ascend Mate7 which was listed on September, 2014, there were more than 1000 sales outlets in the Chinese market sold out this design on that day, and only an ordering of Unicom in Guangzhou, a predetermined amount of channels will be close to 300,000 units.

In addition, Huawei grabbed the rapid growth of the consumer demand of global as well as Chinese mobile phone market for LTE in 4G mobile phone technology, has been achieving more and more consumer’s agreement, 4G LTE shipments continued to grow. Huawei LTE phone shipments accounted for more than 34% in Q3 quarter till 2014. Among them, the main 4G models: Huawei Ascend P7, Huawei G750, Huawei G6 and other global volume shipped over a million units. According to Shao Yang’s saying, the world's fastest 4G mobile phone, Huawei Glory 6, had been sold more than 200 million units only in the Chinese market, and it will be listed in many countries and areas, which

prospects are very impressive. He predicted that " 4G phones will further deeply growth in Q4 quarter of 2014 and 2015."

Huawei can only earn customers' respect and trust through continuous dedication and hard work. Therefore, they have insisted on customer’s variable needs, creating long-term values and bringing customers success.

Moving forward, the company is committed to providing products and solutions for the Cloud, Pipe and Devices businesses. Also helping operators to gain business success with our ABC strategy: growing average revenue per user, increasing bandwidth as well as reducing cost.

3.2 Organization Structure

Huawei Technologies Co., Ltd. is divided into six major systems, they are sales and services, products and solutions, finance, marketing strategies, operations and delivery, human resources, respectively. Among those systems, it sets 7 large areas under the sales and services system in the world, namely in China (domestic market, consists of 27 representative offices in China), the Asia-Pacific area, Latin America Area, Europe Area, Southern Africa Area, the CIS area and MENA area. Huawei company also owns a number of subsidiaries, including Hass Semiconductor Co., Ltd., the terminal company, Huawei Digital Technologies Co., Ltd. Huawei Software Technologies, Ansett letter Electric Co., Ltd. Shenzhen Hui-Business, Huawei marine networks Co., Ltd.

Huawei's organizational structure from top to bottom are the Board of Directors (BOD) - Management Team (EMT) - Product Investment Review Board (IRB) - Six office meeting system.

Despite being a private company, Huawei has been committed to creating a clear and comprehensive corporate governance structure.

Huawei has been established plenty of research laboratories including India, the United States, Sweden, Europe (Germany, Italy and France, etc.), Russian, as well as Beijing, Shanghai, Nanjing, Chengdu, Xi'an, Hangzhou of China. There are 48% of 89 000 employees engaged in research and development work. By the end of 2006, it has accumulated more than 19,000 patents. That has been made Huawei to be the largest patent company for several years.

3.3 Management Achievement of Company

Huawei is a leading global telecommunications solutions provider focused on building long-term partnerships with operators. They have dedicated employees and strong capability of research and development. It can response to customer needs rapidly. Providing customized products and “begin to end” services, helps clients to achieve a business success.

Huawei's products and solutions cover the areas of mobile, broadband, IP, optical networking, telecommunications and other value-added services and terminals. It is committed to providing all-IP converged solutions that enable users can enjoy the same communication experience through any terminal at any time and any place, that deeply enrich people's communication and lives.

Huawei's products and solutions have been deployed in more than 100 countries all over the world. Servicing in 45 telecom operators and 1/3 people of the world's population. It includes the following ten aspects:

- *The wireless access;*
- *Fixed access;*
- *The core network;*
- *Transmission network;*
- *Data communications;*
- *Energy and infrastructure;*

- *Services and Software;*
- *OSS*
- *Secure storage;*
- *Huawei's terminal.*

Huawei implements a strategy of global business. Products and solutions are all deployed in more than 100 countries and areas, serving more than one billion users in the world. International market has been become a major source of Huawei sales. Huawei achieves $ 30.2 billion of contract sales in 2009, an increase of 30%, of which more than two-thirds of its sales from international markets. In 2010, Huawei achieved $ 34 billion contract sales. In 2011 it achieved an expectant sales of $ 40 billion. 2013 full-year revenue is expected at 238 billion to 240 billion yuan. The operating profit is 28.6 billion -29.4 billion yuan of the full year, the maximum increase will reach 47% compared with 20 billion yuan in 2012.

By Fast Company, the authority of the US commercial media, has named the most innovative companies in 2010, Huawei ranked fifth followed after Facebook, Amazon, Apple and google.

In developed regions' market, Huawei products and solutions are widely used in the United Kingdom, France, German, Spain and the Netherlands and other European countries. It also has been made a new scale breakthrough in the market of Japan and the United States.

As the TOP 3 equipment suppliers among the emerging markets of the world, where Huawei's shares are raising steadily. As one of the world's leading provider of mobile network construction, mobile products still occupy a place of the first important through the company's product sales mix. In 2006, Huawei signed 28 *WCDMA / HSPA* commercial contracts. Fixed networks, IP networks and value-added telecom services and other products have shown great growth, market shares raise steadily.

After 10 years efforts of expanding, Huawei has grown into a global company. It set

up 22 overseas regional unit, more than 100 branches, which allows us to get closer to customers, listening to customer needs and respond quickly.

3.4 Research and Development

Huawei continued to enhance the ability to innovate around customer needs. Taking a cost of research and development which are not less than 10% of sales revenue into long-term adherence, and insists to make a pre-research of 10% of the *R & D* investment. Continued to research and track new technology, new areas. Huawei has been successfully launched solutions in *FMC, IMS, WiMAX, IPTV* or other new technologies and applications.

Huawei's initiative to deal with the future trend of network integration and business transformation, providing “end to end” full network solutions from the business application layer, core layer, bearer layer, access layer to the terminal, comprehensively building a unique advantages of network integration in the future.

In order to meet the needs of our customers, they focus on a strategy of continuous customer-centric innovation. The goal of the product *R&D* is to deliver solutions for anticipated and actual customer needs on time by developing innovations in technologies, products, solutions and services.

As the world's leading telecommunications service and equipment provider, Huawei has been proud of using *ICT* precipitation. Recently, Huawei announced providing $ 6.3 million to the 5G Innovation Centre of University of Surrey in funding for the development of 5G network.

5G, refers to the fifth generation of mobile phone systems, is also an extension of 4G after May, last year. Samsung announced that it has successfully developed a 5G core technology, the speed of transporting information is 1GB per second.

In fact, Huawei is not a professional mobile phone manufacturers, mobile phone is

only one of its business. It is more like a large international company like Apple. Before functional machine, Huawei began with the development of the domestic mobile phone sales in China. In 2007, Huawei's contract sales was approximately $ 16 billion, of which overseas sales was about $ 11.5 billion, profit and tax section are also being the first among China's domestic electronics industry.

However, Huawei cannot be called as leader among domestic mobile phone in some aspects. Although the number of Huawei's mobile phone is far ahead, but Huawei's strategy is clearly more widely to get the user through comprehensive coverage between high, middle and low grades. But in this era, the phone recognizable is extremely important, Xiaomi, Meizu increase their sales by virtue of the high degree of adhesion to the uses, while Huawei users are also easily switch to other camps.

What matters most, Huawei does not seems to think highly to the domestic market, its research in overseas markets is far away from any domestic mobile phone in China. So that Xiaomi is also aware of this and began to expand the overseas markets. From this point of view, Huawei's goal is very clear: Since Apple, Samsung accounted for the majority share of the domestic market, then the market share of Huawei should be went to other countries.

4. Financial Analysis of the Company

This part we can call it practical part which will be divided into three sections. First of all is the horizontal analysis. It is the different way to analyze financial statements. Next part is the trend analysis. It is the presentation of amounts as a percentage of a base year. The last part is about financial ratio analysis. All these parts above will use some tables and figures that can show how to incorporate those economic data in the analysis and evaluate them.

4.1 Common-size analysis

Common-size analysis is the analysis of financial statements data and their changes over the time. The aim of it is identifying the trends and major differences. Here are two types:

1) *Horizontal common-size analysis:* analysis of the evolution of financial statements data over the time or their changes with respect to a given period as a benchmark;
2) *Vertical common-size analysis:* analysis of the changes in the proportions of selected benchmarks, like total revenues, total assets, total liabilities and so on.

4.1.1 Vertical common-size analysis of balance sheet.

To conduct a vertical common-size analysis of the balance sheet, the total assets and the total liabilities and stockholders' equity are generally used as the base figures. And the individual assets are shown clearly before the total assets appear. The current liabilities, non-current liabilities and equities will be also shown before we calculate total liabilities and stockholders' equity.

Now we can take balance sheet of HUAWEI Corp. as an example. The balance sheet is shown in Annexes1: Balance Sheet Statement during period of 2009 - 2014

Notice that the heading specifically identifies four significant items related to the

statement:

1. *Name of the entity*: HUAWEI Corp.
2. *Title of the statement*: Balance Sheet.
3. *Specific date of the statement*: At December 31, 2011.
4. *Unit of measure:* (in millions yuan).

The organization for which financial data are to be calculated, called an accounting item, must be accurate defined. In the balance sheet, the business entity itself, not the business owners, is looked as owning the sources it uses and as owing its debts. The heading of each statement indicates the time dimension of the report. The balance sheet is like a financial snapshot indicating the entity's financial position at a specific point in time. In this case, December 31~2009, December 31, 2011—which is stated clearly on the balance sheet. The listing of Cash 12, 4606.00 on HUAWEI's balance sheet actually means 124,606,000 yuan.

HUAWEI's balance sheet first lists the company's assets. Assets are economic resources owned by the entity. It next lists its liabilities and stockholders' equity. They are the sources of financing or claims against the company's economic resources. Financing provided by creditors creates a liability. Financing provided by owners creates owners' equity. Since HUAWEI is a corporation, its owners' equity is designated as stockholders' equity.

For more, we use Huawei Corporation’s 2009-2014 years balance sheet of horizontal analysis for illustration purposes throughout this paragraph. The basic data comes from Annex 1.

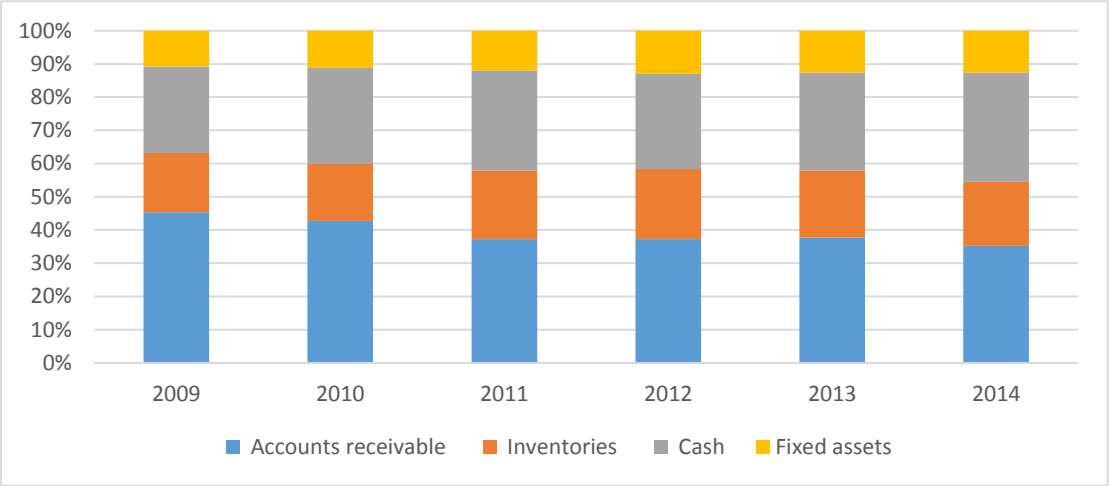
Table 4.1 Vertical common- size analysis of assets

	2009	2010	2011	2012	2013	2014
current assets	89%	89%	88%	87%	87%	87%
Accounts receivable	45%	43%	37%	37%	38%	35%
Inventories	18%	17%	21%	21%	20%	19%
Cash	26%	29%	30%	29%	29%	33%
Fixed assets	11%	11%	12%	13%	13%	13%
Total assets	100%	100%	100%	100%	100%	100%

Source: Own elaboration

According to Table 4.1, we can see the current assets keep stable from 2009 to 2014, especially the cash. In 2012 the current assets begin to decrease but the inventories are up to 21% of the total assets which result the less proportion of the cash part. In Figure 4.1, we can see share of individual items of assets of balance sheet.

Figure 4.1 Vertical Common-size Balance sheet of Huawei Corp.



Source: Own elaboration

Now we can easily see that each parts have experienced their own change through this period. The yellow part is fixed assets which changed less. The ratios of fixed assets to total assets are all 11% in 2009 and 2010. And in 2012, 2013 and 2014, the percentage are all 13%, which means the change in fixed assets and total assets are generally the same in the last three years. The grey part is the ratios of cash to total assets. We will find this ratio was constant during this period, which the lowest is 26%, the largest is 33%. The same as orange part, the ratio of inventories to total assets. The

percentages are around 18% to 21%. What changes most is the ratio of accounts receivable to total assets. The largest proportion is in first year which is 45%. Accounts receivable means money owed to a company by its debtors. So we will find Huawei owed the most account receivables by its debtors in 2009.

4.1.2 Vertical common-size analysis of income statement.

To conduct a horizontal common-size analysis of income statement, sales figure is generally used as the base and all other items of income statement like operating costs, operating profit, income tax, and net profit etc. are shown in the figure.

For more specific understanding of income statement, we take income statement of HUAWEI Corp. as an example that shown in Annex 2: Income Statement during period of 2009 – 2014.

Companies earn revenues from the sale of goods or services to customers (in HUAWEI's case, from the sale of mobile product). Revenues normally are stated for goods or services that have been sold to a customer whether or not they have yet been paid for. Retail stores such as Wal-Mart and McDonald's often receive cash at the time of sale. However, when HUAWEI sells its products to customers, it receives a promise of future payment called an account receivable, which later is collected in cash. In either case, the business recognizes total sales (cash and credit) as revenue for the period.

Expenses represent the *RMB* amount of resources the entity used to earn revenues during the period. Expenses reported in one accounting period may actually be paid in another accounting period. Some expenses require the payment of cash immediately while some require payment at a later date. Others may also require the use of another resource, such as an inventory item, which may have been paid for in a period in advance.

Net income or net profit (often called "the bottom line") is the excess of total revenues over total expenses. If total expenses exceed total revenues, a net loss is

appeared. We noted earlier that revenues are not necessarily the same as collections from customers and also, expenses are not necessarily the same as payments to suppliers. Thus, as a result, net income normally does not equal the net cash that are generated by operations. This latter amount is reported on the cash flow statement discussed later in this chapter.

A quick reading of HUAWEI's income statement indicates a great deal about its purpose and content. The heading identifies the name of the entity, the title of the report, and the unit of measure used in the statement. Unlike the balance sheet, however, which reports as of a certain date, the income statement reports for a specified period of time (for the year ended December 31, 2011). The time period covered by the financial statements (one year in this case) is called an accounting period. Notice that HUAWEI's income statement has three major captions, revenues, expenses, and net income.

As for the method of vertical common-size analysis, we also use Huawei Corporation’s 2009-2014 years income statements for illustration purposes throughout this paragraph.

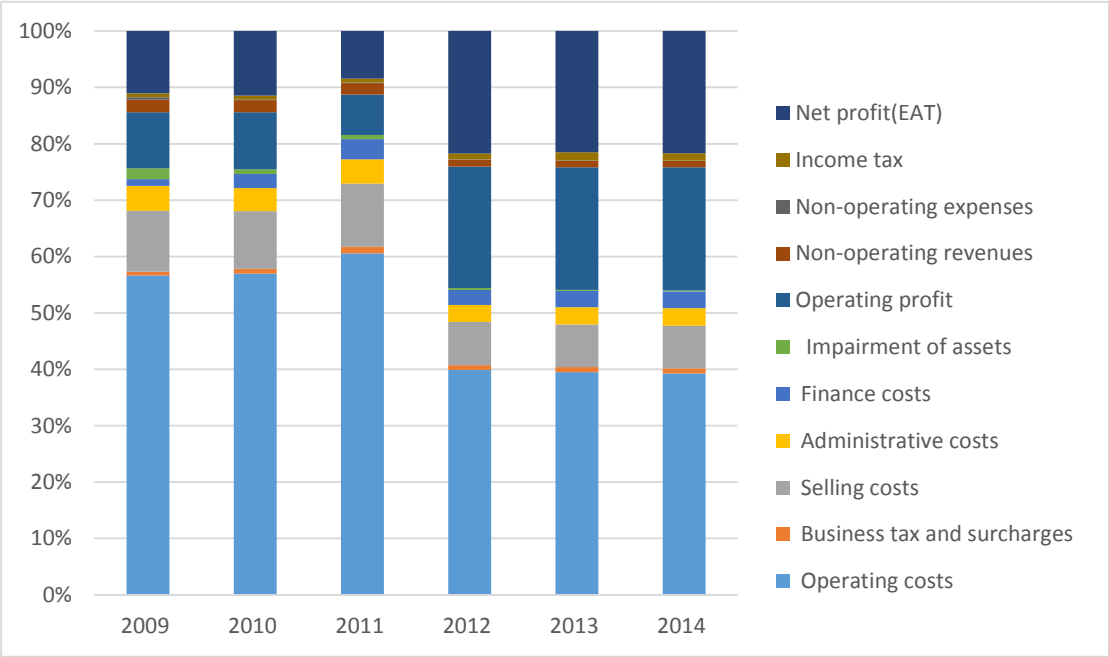
Table 4.2 Vertical common-size analysis of income statement

	2009	**2010**	**2011**	**2012**	**2013**	**2014**
Operating costs	66.1%	66.58%	68.27%	64.95%	64.49%	64.22%
Business tax and surcharges	0.81%	0.94%	1.30%	1.34%	1.45%	1.47%
Selling costs	12.64%	11.99%	12.63%	12.56%	12.37%	12.38%
Administrative costs	5.11%	4.74%	4.86%	4.87%	4.99%	5.13%
Finance costs	1.42%	2.95%	4.06%	4.37%	4.74%	4.84%
Impairment of assets	2.27%	0.95%	0.79%	0.48%	0.30%	0.25%
Operating profit	11.61%	11.84%	8.08%	35.05%	35.51%	35.78%
Non-operating revenues	2.61%	2.48%	2.31%	2.07%	1.98%	1.86%
Non-operating expenses	0.52%	0.18%	0.13%	0.11%	0.08%	0.09%
Income tax	0.79%	0.79%	0.77%	1.62%	2.26%	2.07%
Net profit(EAT)	12.90%	13.35%	9.50%	35.38%	35.14%	35.48%
Total cost	88.39%	88.16%	91.92%	88.57%	88.35%	88.29%
The total profit(EBIT)	11.61%	11.84%	8.08%	11.43%	11.65%	11.71%

Source: Own calculation

In the Table 4.2, we can see individual item from income statement. In Figure 4.2, we can see share of individual items of income statement.

Figure 4.2 Vertical common-size income statement of Huawei. Corp.



Source: Own elaboration

Table 4.2 and Figure 4.2 show vertical common-size analysis of income statement of Huawei Company. From the table 4.2 and Figure 4.2, we can easily see that in 2009, Huawei Company's operating costs make up percentage about 66.1%, it is actually not good for a company, and the data changed a lot after 2011. Operating costs is an essential item of income statement. Also, we can find that in 2009, the administrative costs are higher than the next five years, that because in 2009, the structure of Huawei Company has a big change, the costs would be higher. But after that, the administrative costs go down. Selling costs remain stable at about 12%. The other costs like business tax, finance costs, non-operating expenses and income tax have very little influence on total revenues. At the same time, we can find that in 2012, the net profit is really a big amount that is because in the end of 2012, Huawei Company released the world's thinnest smartphone Ascend P1 S, it will make a great profit.

In Table 4.2 we can find most of the items were stable and they changed in a small

range expect operating profit because of the huge increase in 2012. And even in 2012, there is a low increasing of costs. It means the company still has a stable condition.

Next part we will talk about another kind of analysis when we analyze the changes in the financial statement.

4.2 Trend analysis

Trend analysis we can also call it horizontal analysis does not actually shows us the weakness or strengths of a company. There are some main purposes of trend analysis:

1) To see the trend of different income statement and balance sheet tables or figures of a company;
2) To evaluate whether the company's management achieves its goals or not;
3) To analyze unexpected changes: increases and decreases in the financial statement items;
4) To analyze total performance of the company.

4.2.1 Trend analysis of balance sheet

In a trend analysis the changes in income statement and balance sheet items are calculated (in *RMB* and percentage) and compared with the expected changes. For example, you start a business behavior and expect a 10% increase in sales. But if sales revenue decreases by 5%, then it needs to be investigated. Or if you find an unexpected increase or decrease in cost of goods sold or any operating expense, you may need to investigate your company and find the reason.

We use Huawei Corporation's 2009-2014 years balance sheet for illustration the trend changes throughout this paragraph.

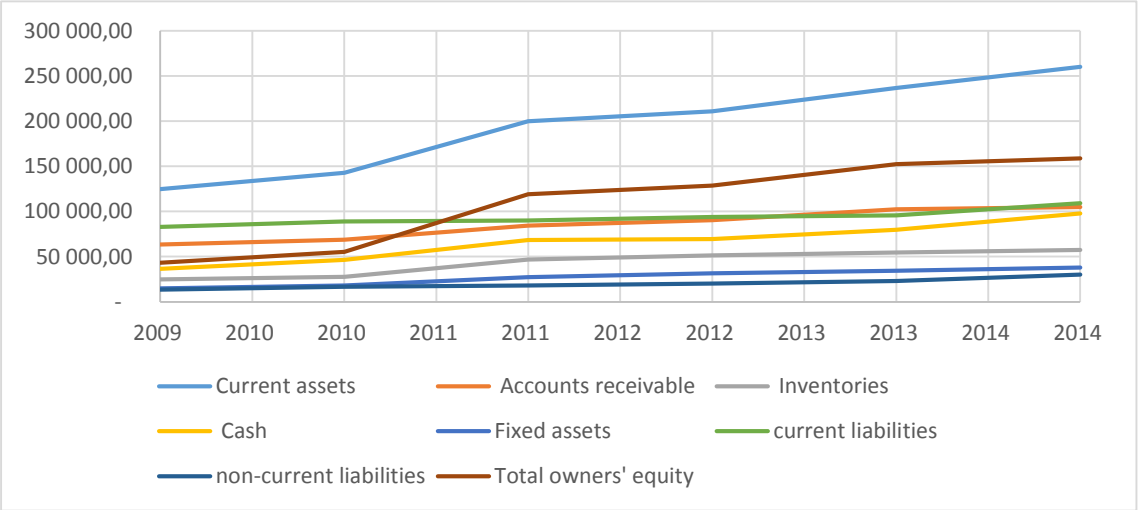
Table 4.3 (Partly) Balance sheet of Huawei Corp.

	2009	2010	2011	2012	2013	2014
Current assets	124,606	142,767	199,770	210,918	236,546	259,870
Accounts receivable	63,282	68,809	84,488	90,365	102,301	104,908
Inventories	24,947	27,566	46,748	51,236	54,562	57,321
Cash	36,377	46,392	68,534	69,317	79,683	97,641
Fixed assets	15,047	18,074	27,150	31,670	34,321	37,741
current liabilities	82,771	88,776	89,872	93,876	95,657	109,110
non-current liabilities	13,566	16,814	18,146	20,139	22,908	29,954
Total owners' equity	43,316	55,251	118,902	128,573	152,302	158,547

Source: Own calculation

From the data of Table 4.3, we can get some information about horizontal common-size analysis of assets, liabilities and the equity from Figure 4.3 as follows:

Figure 4.3 Trend analysis of Balance Sheet



Source: Own elaboration; unit: thousand yuan

Now we have a clearly set-up to see how Huawei's balance sheet has been changed over this period. We can see almost each items are increasing during six years. Over time we are seeing Huawei invest more into current assets, and less into fixed assets. And also, current liabilities are far more than the non-current liabilities. There is a significant growth in 2011 because of the growth of current assets in 2011. And for further observation, we will find the company invest more into cash. Based on the formula: total assets = total liabilities + total equity, we can easily see that the height of total assets is the same as the height of total liabilities.

We can draw a conclusion from above figure that trend of each years' balance sheet are almost the same. Total assets are made of current assets and fixed assets. And in which current assets have a large proportion. That shows the company got a large amount of accounts receivable during these years. And current liabilities are also far more than the non-current liabilities. The total owner's equity is increasing stably. In the end we will easily find the right side: total liabilities and total owners' equity are the same as the total assets.

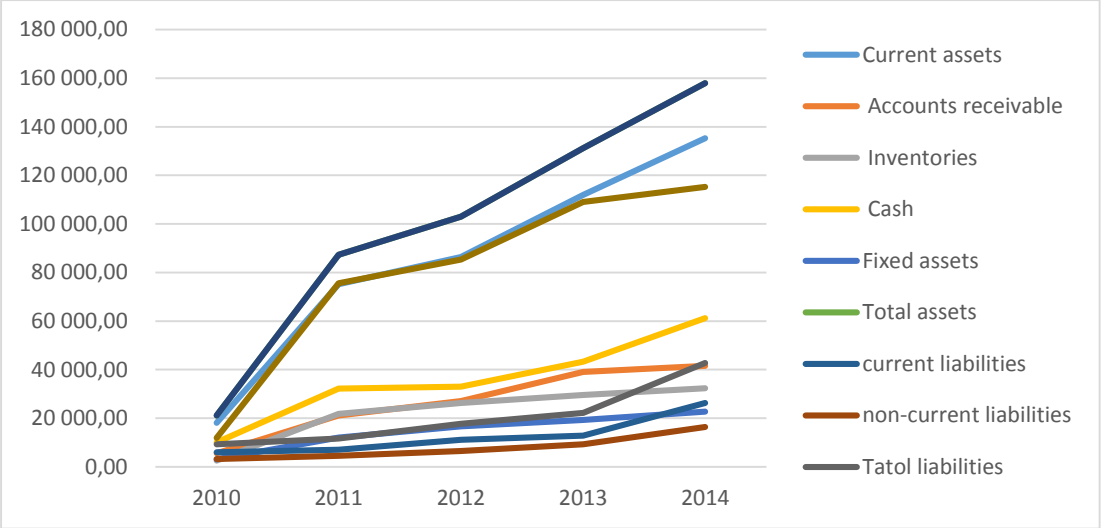
In horizontal common-size analysis, the year of 2009 will be regarded as base year, and then we will use the absolute change to analyze the balance sheet statement and income statement. The data comes from Annex1 and the results are shown in the Table 4.4 and Figure 4.4 as follows:

Table 4.4 Absolute Changes compared to 2009 in balance sheet

	2010	**2011**	**2012**	**2013**	**2014**
Current assets	18,161	75,164	86,312	111,940	135,264
Accounts receivable	5,527	21,206	27,083	39,019	41,626
Inventories	2,619	21,801	26,289	29,615	32,374
Cash	10,015	32,157	32,940	43,306	61,264
Fixed assets	3,027	12,103	16,623	19,274	22,694
Total assets	21,188	87,267	102,935	131,214	157,958
current liabilities	6,005	7,101	11,105	12,886	26,339
non-current liabilities	3,248	4,580	6,573	9,342	16,388
Total liabilities	9,253	11,681	17,678	22,228	42,727
Total owners' equity	11,935	75,586	85,257	108,986	115,231
Total liabilities and owners' equity	21,188	87,267	102,935	131,214	157,958

Source: Own calculation; unit: thousand yuan

Figure 4.4 Absolute Changes compared to 2009 in balance sheet



Source: Own elaboration; unit: thousand yuan

From Table 4.4, we can find the assets were all increasing by compared with the year 2009. And the current liabilities in 2014 are twice in 2013. There is a huge increase for current liabilities in 2014 which is not good for company. From the Annexes1, we can easily know that the current assets continuously increase from 2009 to 2011, especially the inventories. In 2011, the whole smart phone market has a big challenge, the whole smart phone market sold well so that will be a big opportunity for Huawei Company. After that year, Huawei Company has more new business and it realizes the target of producing and selling by auto. This behavior creates a huge profit. According to the above data, we can easily find the Huawei Company has a great change during these six years, after 5 years, all the data of this company becomes 6 or more times of 2009.

After analyzing the balance sheet, we will continue to analyze income statement.

4.2.2 Trend analysis of income statement

Trend analysis of the income statement is usually in a two-year format, but I will still choose six years period, with a variance also shown that states the difference between each years for each line item. These data during six years reveal patterns in figure which

covers successive period. From the figure we can easily know the expense, cost, and revenue are all grow, but the operating costs and expenses grows more stable than revenue. Also, the year of 2009 will be regarded as base year, and then we will use the absolute change to analyze the income statement. The data comes from Annex 2 and the results are shown in the Table 4.5 as follows:

Table 4.5 Absolute Changes compared to 2009 in income statement

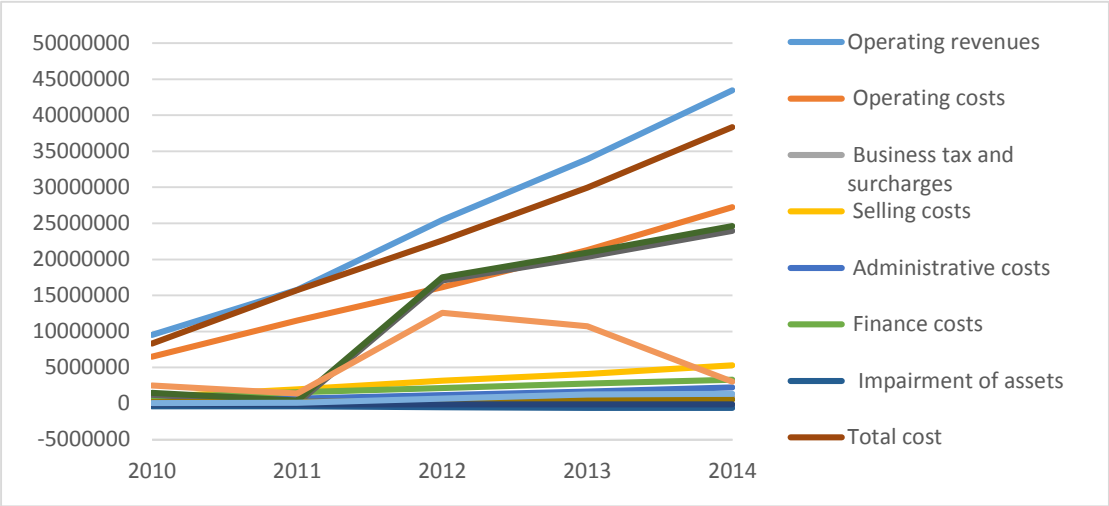
	2010	**2011**	**2012**	**2013**	**2014**
Operating revenues	9 516 246	15 790 608	25 457 401	33 897 106	43 453 731
Operating costs	6 487 989	11 519 349	16 118 935	21 286 222	27 235 309
Business tax and surcharges	135 588	374 606	524 057	718 510	868 510
Selling costs	917 391	1 991 998	3 169 201	4 103 105	5 292 196
Administrative costs	322 161	681 178	1 157 303	1 651 165	2 234 880
Finance costs	813 883	1 560 016	2 138 085	2 759 993	3 294 672
Impairment of assets	-369 782	-387 908	-499 708	-584 567	-595 735
Total cost	8 307 230	15 739 239	22 607 873	29 934 428	38 329 832
Operating profit	1 209 016	51 369	17 074 922	20 347 340	23 954 878
Non-operating revenues	192 163	261 761	339 191	450 757	550 365
Non-operating expenses	-98 007	-113 666	-113 424	-124 763	-111 718
The total profit(*EBIT*)	1 499 186	426 796	17 527 537	20 922 860	24 616 961
Income tax	74 325	111 415	700 557	1 278 087	1 346 907
Net profit(*EAT*)	2 499 061	1 378 226	12 595 592	10 720 496	3 048 443

Source: Own calculation; unit: thousand yuan

According to Table 4.5, from 2011 to 2014, it shows that non-operating revenues increase and non-operating expenses decrease. From 2010 to 2013, the absolute change of non-operating expense shows minus, it means the non-operating service exist loss. However the net profit is increasing a lot because the non-operating service has little proportion of the total profit.

From the data of Table 4.5, we can get some information about horizontal common-size analysis of revenues, costs and profit from Figure 4.5 as follows:

Figure 4.5 Absolute Changes compared to 2009 in income statement



Source: own elaboration; unit: thousand yuan

In this figure, we will see a stable growth of operating revenues. For the costs, operating costs are always take a large proportion. And there are always less amount of the item: business tax and surcharges. In 2009, the total profit is very high but then there is a decrease in next year. The same situation in 2011. But after this year, there a big growth happens next three years. Based on the total profit is the sum of net profit and interests and income tax, we can easily find interests in 2014 is the biggest amount. So that net profit in 2014 is really low. Sometimes we say as the development of productivity, the selling costs and the other costs will be decreased by years. However, from the date from Table 4.5, we can find the costs almost increase every year. That is because Huawei Company is a young company, from the start years, this company need to expand. Maybe after 10 or 20 years, we will find a decreasing selling and administrative costs.

From Table 4.4 and Table 4.5, we can see that Huawei Company has the develop stable and positive.

4.3 Financial ratio analysis

Financial ratios are mathematical comparison when we analyze financial statement accounts and sorts. These relationships between the financial statement accounts help companies to realize the areas where need improvement. As for investors and creditors, they are benefit from financial ratio analysis that they can understand how well an internal business management is performing.

Ratios are simple to calculate and easy to understand. Financial ratios are the most common and widely-use tools used to analyze a business' financial performing. They can also be used to compare different companies in different industries. Large or small companies can use ratios to compare their financial position since a ratio is just a mathematically comparison based on proportions. On the other hand, financial ratios don't take into consideration how large a company or the industry is because ratios are just an original computation of financial status and performance.

Ratios allow us to compare internal company management through industries, to identify their weaknesses and strengths. Financial ratios are often divided up into seven main categories: efficiency, solvency, liquidity, profitability, market prospect, coverage and investment leverage. But for this paper, I will choose only four of them to illustrate by figures.

4.3.1 Profitability ratio analysis

Profitability ratios usually show a company's ability to generate profits from its business behavior by comparing income statement accounts and items. Profitability ratios focus on a company's return on investment in inventory and other assets. These ratios commonly tell us how well companies can generate profits from their operations.

Based on its relative level of assets and resources, investors and creditors can use profitability ratios to assess a company's achievement on investment. In other words,

profitability ratios can be used to assess whether companies are generating enough operational profit from their assets. So that we can say in this sense, profitability ratios relate to efficiency ratios because they show how well companies can make full use of their assets to generate profits. Profitability is also important to the concept of solvency and taking into consideration.

Here are some key ratios that when assessing how profitable a company, the investors and creditors will consider. So I take Huawei Corporation's 2009-2014 years financial statement into calculation, so some results are computed in the following table and figure.

Table 4.6 Profitability ratio analysis of Huawei. Corp.

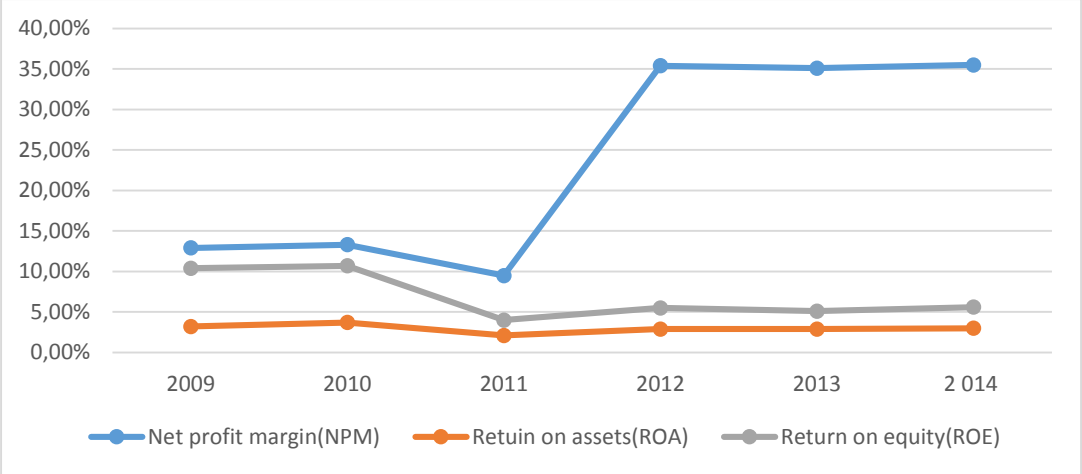
Profitability ratio	Equation	2009	2010	2011	2012	2013	2014
Net profit margin(NPM)	(2.11)	12.90%	13.30%	9.50%	35.40%	35.10%	35.50%
Return on assets(ROA)	(2.13)	3.20%	3.70%	2.10%	2.90%	2.90%	3.00%
Return on equity(ROE)	(2.12)	10.40%	10.70%	4.00%	5.50%	5.10%	5.60%

Source: Own elaboration

According to Table 4.1, we can see the data of profitability ratios of Huawei Company from 2009 to 2014. From Table 4.6, we can easily find from 2009 to 2014, return on equity is less than 10% of Huawei Company, but from 2009 to 2010, the return on equity increase very fast especially in 2010, which means the profitability condition of Huawei Company was better in the past and in present years, the condition is not very well.

We have seen the detail data in Table 4.6. Here we can make Figure 4.6 to continue analyze profitability as follows:

Figure 4.6 Profitability ratio analysis of Huawei. Corp.



Source: Own elaboration

From the figure we will clearly find the net profit margin is not stable during this period. As we all know, profit margin describes the ability of a company to gain net income from each sales *RMB*. From the calculated result we can infer this ability is not very well in 2011. So we can know that Huawei earn less income than any other years. And in other hand, the company earn income mainly by a great amounts of sales in 2014 because of the highest percentage. *ROA* is almost around 3% is a good signal that the company has a good profitability. The *ROE* is better in the first two years, but since 2011 the number has decreased from 10.70% to 5.00%. In a sense, these results still show that Huawei is a good profitable company.

4.3.2 Solvency ratio analysis

Solvency ratios, which also called leverage ratios, can measure a company's ability to support performances indefinitely by comparing debt degree with equity, assets, and earnings. In other words, solvency ratios identify business running issues and a firm's ability to pay its own payments in the long term. Many people confuse about solvency ratios and liquidity ratios. We can simply explain them. Although they both measure the ability of a company to pay off its debts, solvency ratios focus more on the long-term sustainability of a company instead of the current liability payments.

Solvency ratios show a company's ability to make payments and pay off its long-term obligations to investors, shareholders, and commercial banks. So company can be more creditworthy and financially sound with the better solvency ratios in the long term.

We take Huawei Corporation's 2009-2014 years financial statement into calculation as the following table shows, and also, these results are computed in the following figure.

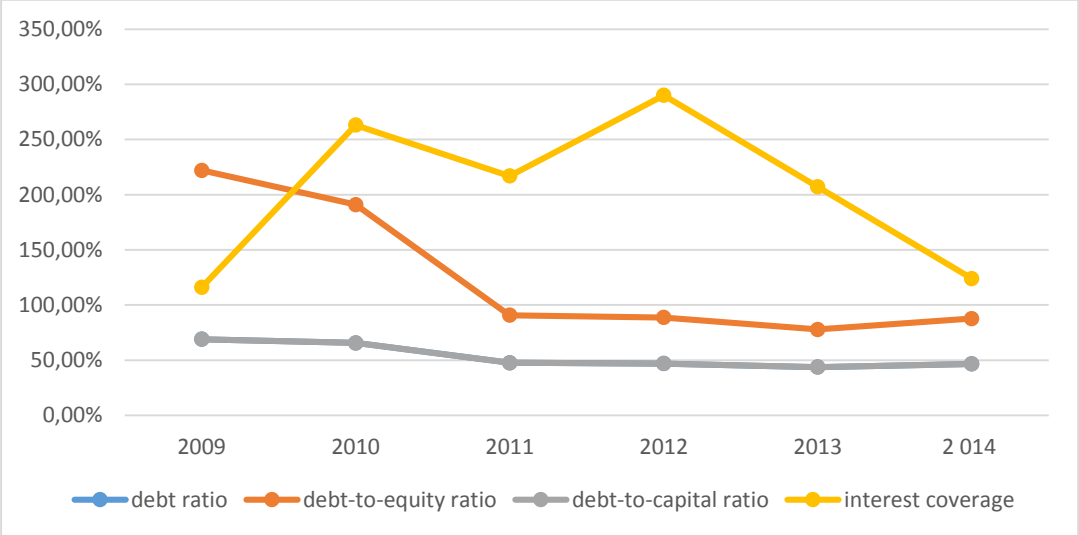
Table 4.7 Solvency ratio analysis of Huawei. Corp.

Solvency ratio	equation	2009	2010	2011	2012	2013	2014
debt ratio	(2.21)	0.69	0.656	0.476	0.47	0.438	0.467
debt-to-equity ratio	(2.22)	2.22	1.91	0.908	0.887	0.778	0.877
debt-to-capital ratio	(2.24)	0.69	0.656	0.476	0.47	0.438	0.467
interest coverage	(2.23)	1.16	2.63	2.17	2.9	2.07	1.24

Source: Own elaboration

Based on the dates from Table 4.7, we made Figure 4.7 here as follows:

Figure 4.7 Solvency ratio analysis of Huawei. Corp.



Source: Own elaboration

From the ratios figure we can see debt-to-equity ratio has been getting smaller and smaller since 2010, so we can inform the company has more opportunity to expand through debt financing and investing. Interest coverage is volatile because of the

changes in the income statement. We can know in 2009 and 2014, their interest payments are relatively large to the operating profit so that the percentages of these two years are very low.

4.3.3 Liquidity ratio analysis

Liquidity ratios analyze the ability of a company to meet its immediate or short-term liabilities and obligations. In other words, these ratios mean the cash degree of a company and the ability to turn other assets, especially liquid assets, into cash to pay off liabilities and other short-term obligations.

Liquidity is not only a method of how much cash flow a business has. It is also a measure of how easy it will be for the company to raise enough cash or ability of transferring assets into cash. Assets like accounts receivable, trading securities, and inventory are relatively simple for many companies to convert into cash in the short term. Thus, all of these assets can be computed into the liquidity calculation of a company.

Here are the most common liquidity ratios that we take from Huawei Corporation's 2009-2014 years financial statement, and these results are showed in the following figure that makes them easy to analyze.

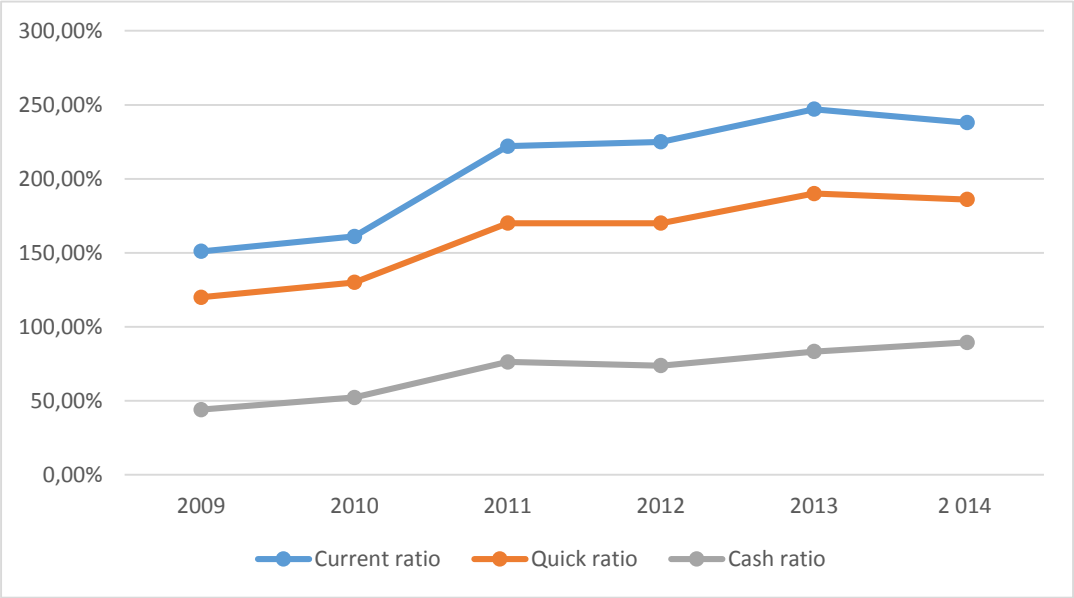
Table 4.8 Liquidity ratio analysis of Huawei. Corp.

Liquidity ratio	equation	2009	2010	2011	2012	2013	2014
Current ratio	(2.18)	1.51	1.61	2.22	2.25	2.47	2.38
Quick ratio	(2.19)	1.2	1.3	1.7	1.7	1.9	1.86
Cash ratio	(2.20)	0.44	0.523	0.763	0.738	0.833	0.895

Source: Own elaboration

Based on the dates from Table 4.8, we made Figure 4.8 here as follows:

Figure 4.8 Liquidity ratio analysis of Huawei. Corp.



Source: Own elaboration

We will find a result from the figure that Huawei has positive working capital which based on the formula: working capital = current assets – current liabilities. Which means that the current assets excesses current liabilities. Besides, current ratio, quick ratio and cash ratio all have big value of the deep growth during almost each year, so Huawei Company has a good liquidity.

4.3.4 Activity ratio analysis

Activity ratios also called efficiency ratios measure how well companies utilize their assets to acquire income. Activity ratios often look at the time it takes companies to collect cash from customer or the time it takes companies to convert inventory into cash—in other words, how companies make sales. These ratios are used by management to help to improve the company as well as outside investors and creditors looking at the operations of profitability of the company.

Activity ratios go closely with profitability ratios. And assets efficiency utilization also has a direct impact on liquidity. Most often when companies are actively with their resources, they can become profitable. Tesco is a good example. Tesco is a kind of

chain supermarket that extremely good at selling low margin products at high volumes. In other words, they are active at turning their assets. Even though they don't make much profit per sale, they can make a ton of sales. By each little sale adds up.

We take Huawei Corporation's 2009-2014 years financial statement into calculation as following table and here are the most common efficiency ratios include as following figure:

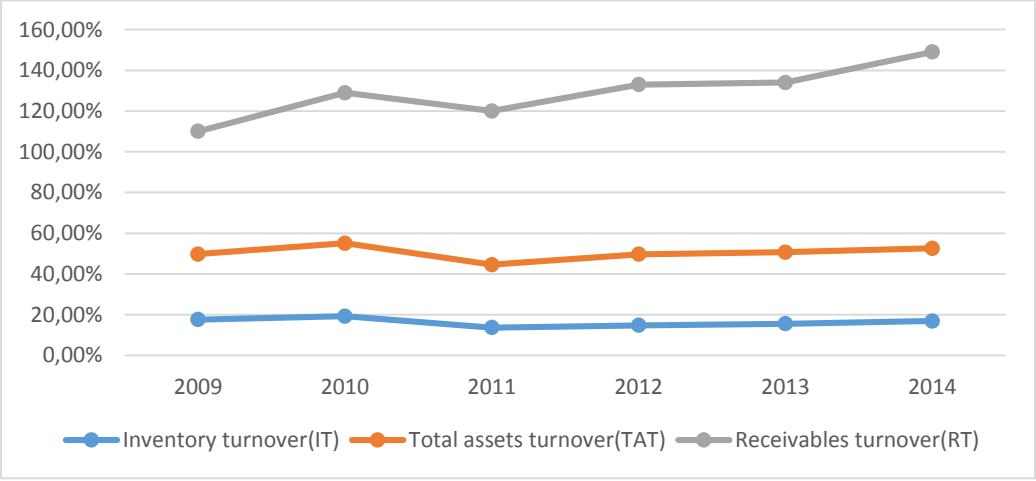
Table 4.9 Activity ratio analysis of Huawei. Corp.

Activity ratio	equation	2009	2010	2011	2012	2013	2014
Inventory turnover(*IT*)	(2.27)	17.60%	19.30%	13.70%	14.80%	15.60%	16.90%
Total assets turnover(*TAT*)	(2.28)	49.80%	55.10%	44.60%	49.70%	50.70%	52.60%
Receivables turnover(*RT*)	(2.26)	110.00%	129.00%	120.00%	133.00%	134.00%	149.00%
DSO	(2.29)	327.30	279.10	300.00	270.70	268.70	241.60

Source: Own elaboration

Based on the dates from Table 4.9, we made Figure 4.9 here as follows:

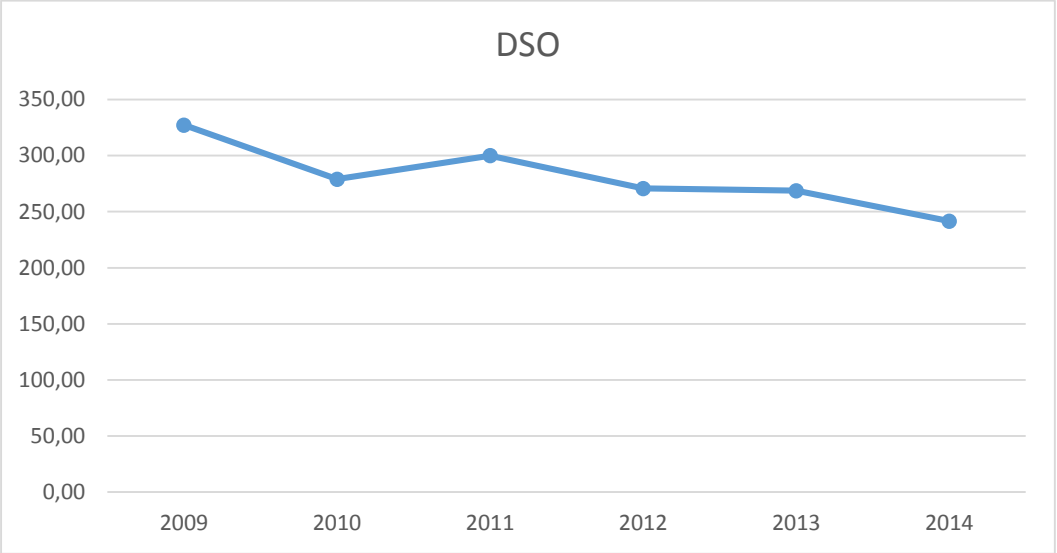
Figure 4.9 Activity ratio analysis of Huawei. Corp.



Source: Own elaboration

And there is one more result called days' sale in inventory (DSO) that is calculated for illustration.

Figure 4.10 DSO of Activity ratio analysis of Huawei. Corp.



Source: Own elaboration; Unit: days

As for these figures, total asset turnover almost with 50% during six years shows that the Huawei. Corp. has a degree ability to use its assets to generate sales. Accounts receivable turnover rate means the company needs more than 1.2 times to convert its receivable into cash each year. In addition, the company sales and replaces its merchandise inventory around only 1 time each year. From the day's sale in inventory, we can know the demanded product is really hard to sell because it takes 250-300 times to make it.

4.4 Pyramidal Decomposition of Return on Equity

Pyramidal decomposition enables to analyze what drives the value of financial ratios. The introduction of Pyramidal Decomposition we can find in theoretical part. In this part, we will continue to calculate the results of gradual changes to analysis the financial position of Huawei Company during 2009 to 2014. The change of 2009 to 2014 of return on equity will be shown in Table 4.10 as follows:

Table 4.10 Change of 2009 to 2014

	2009	2010	2011	2012	2013	2014
EAT	1 034 270	3 533 331	2 412 496	13 629 862	11 754 766	4 082 713
Total Equity	43 316 000	55 251 000	118 902 000	128 573 000	152 302 000	158 547 000
Operating Revenue	34 777 181	44 293 427	50 567 789	60 234 582	68 674 287	78 230 912
Total Assets	139 653	160 841	226 920	242 588	270 867	297 611
ROE	2.39%	6.40%	2.03%	10.60%	7.72%	2.58%
Absolute change	×	4.01%	-4.37%	8.57%	-2.88%	-5.14%
Index of the change	×	267.83%	31.73%	522.47%	72.81%	33.36%

Source: Own calculation; unit: thousand yuan

According to Table 4.10, we can see that the absolute change of return on equity is negative in 2011, 2013 and 2014. And the Index change in 2010 and 2012 is really high, which are over 100% even 200%. We all know that the effects of quantization, including four possible ways to changes decompose excess of the number of decomposition and functional decomposition method. In this work, we will only focus on one method, which is the method of gradual changes to analyze.

4.4.1 Method of gradual change

According to Table 4.10, we can calculate the gradual change of component ratios in each period in Table 4.11 and Figure 4.11.

Table 4.11 Method of gradual change

	2009	2010	Δa	ΔROE	ORDER
EAT/REV	0.03	0.08	5.00%	4.02%	1
REV/ASSETS	0.25	0.28	2.64%	0.68%	3
ASSETS/EQUITY	3.22	2.91	-31.30%	-0.69%	2
SUM	×	×	×	4.01%	×
	2010	**2011**	**Δa**	**ΔROE**	**ORDER**
EAT/REV	0.08	0.05	-3.21%	-2.57%	1
REV/ASSETS	0.28	0.22	-5.25%	-0.73%	3
ASSETS/EQUITY	2.91	1.91	-100.26%	-1.07%	2
SUM	×	×	×	-4.37%	×

	2011	**2012**	**Δa**	**ΔROE**	**ORDER**
EAT/REV	0.05	0.23	17.86%	7.59%	1
REV/ASSETS	0.22	0.25	2.55%	1.10%	2
ASSETS/EQUITY	1.91	1.89	-2.17%	-0.12%	3
SUM	×	×	×	8.57%	×
	2012	**2013**	**Δa**	**ΔROE**	**ORDER**
EAT/REV	0.23	0.17	-5.51%	-2.58%	1
REV/ASSETS	0.25	0.25	0.52%	0.17%	3
ASSETS/EQUITY	1.89	1.78	-10.83%	-0.47%	2
SUM	×	×	×	-2.88%	×
	2013	**2014**	**Δa**	**ΔROE**	**ORDER**
EAT/REV	0.17	0.05	-11.90%	-5.36%	1
REV/ASSETS	0.25	0.26	0.93%	0.09%	3
ASSETS/EQUITY	1.78	1.88	9.86%	0.14%	2
SUM	×	×	×	-5.14%	×

Source: Own calculation

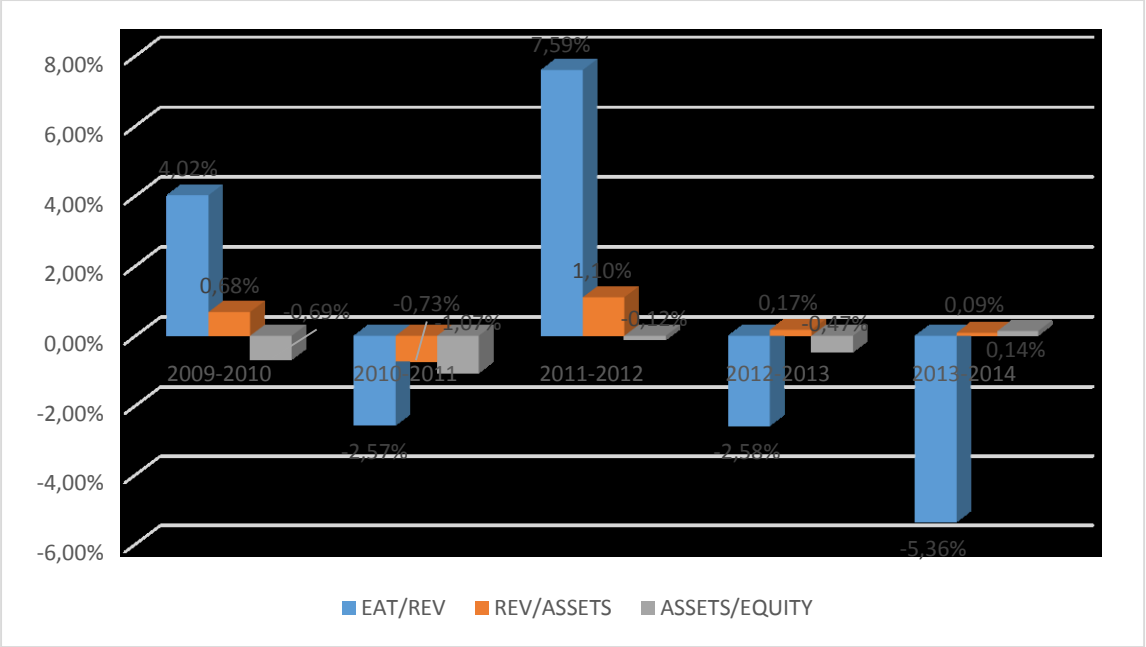
From Table 4.11, we can see that from 2009 to 2010, the financial leverage has negative influence on *ROE*. The net profit margin has the most impact on *ROE*. From 2011 to 2012, we can see net profit margin influence *ROE* most and it is positive influence. The assess turnover and financial leverage have almost the same impact because in this period, the sum of these three component ratio is the largest one.

From 2011 to 2012, net profit margin has most influence and it becomes positive effect. The financial leverage always has negative influence till the period of 2013 to 2014. As we all know, financial leverage itself is a risky factor: on the one hand, shareholders can get double or multiple returns in their investment, on the other hand, companies that are highly leverage may be at the risk of bankrupt if they are unable to make payments on their debts. What's more, such companies may also find it difficult to ask for new borrows. A well performed company has much more possibility of avoid the side effect of financial leverage, which is also an important guarantee to investors' benefits. From 2013 to 2014, we find net profit margin is the most contribution part to ROE but it is negative. Fortunately the financial leverage and total assets turnover are

all positive, which are 0.14% and 0.09%. However, the sum of the change during this two year is still negative.

In above, we can find the calculation with method of gradual change. Based on the dates from Table 4.11, we made Figure 4.11 here as follows:

Figure 4.11 Method of gradual change



Source: Own elaboration

In a word, from the analysis of gradual changes, we can see from Figure 4.11, the net profit margin is the most important ratio to contribute to the growth of ROE. However, the net profit margin is always negative which will result the sum of the change becomes negative. But it is undeniable to say that the total assets turnover and financial leverage still play the important role in contributing to the ROE change.

5. Conclusion

In this financial analysis thesis, we have explained three methods of financial analysis, Common-size analysis, financial ratio analysis and pyramidal decomposition. At the same time, we have introduced the main three statements, balance sheet, income statement and cash flow statement.

The aim of submitted bachelor thesis was providing the financial analysis of Huawei Company during 2009 to 2014 period.

This thesis analyzed the financial statement of Huawei Company. The objective of the thesis was to assess the financial performance of Huawei Company. The financial performance was evaluated by financial analysis, including common-size analysis, financial ratio analysis and pyramidal decomposition, during the period from 2009 to 2014.

By analyzing the financial statements of Huawei Company, we should notice some important points. First, Huawei Company developed quite fast during these six years; we can see its revenue was increasing years by years. Second, Huawei Company had a very good ability to arrange its assets to make more space to develop; we can see it had very good liquidity and can pay its payables. Third, during the period Huawei Company had a high speed development, cause its current assets growth up two more times during 2009 to 2014. Finally, industrial innovation is very important to Huawei Company, because its net profit has been increasing in recent years because of the new smart phone creation.

In common-size analysis we can know that during the chosen period, it showed that the growth of Huawei Company is in good condition. What's more, after analyzing of company's income statement showed that the net profit in operating activities is the main parts, and that resulted in an efficiency of fund.

From the pyramidal decomposition of return on equity analysis, we could find out the financial leverage of Huawei Company during period 2009 to 2014 was stable but generally negative, which directly influenced the return on equity a lot. On the other hand, this condition can tell us in this period, especially in 2012, the company spent lots of money on investments because of industrial innovation.

The overall results of this study suggests that Huawei Company is a big and fast developing company, but they still should pay attention to its liquidity and profitability. Besides, Huawei Company needs to research or create new technology according to the customers' demand, which can make their products or services more competitive in order to make more profits. At the same time, it needs to keep innovating the modal of management. All in all, Huawei Company should not only chase to make profit in China, but also make innovation to make it more and more competitive to other more powerful companies like Apple and Samsung.

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List of Abbreviations

ACP	average collection period
CF	cash flows
DSO	days sales outstanding
EAT	earnings after tax
EBIT	earnings before interest and tax
EBT	earnings before tax
GDP	gross domestic product
P/L	profit and loss
ROE	return on equity
T	company's tax
t	corporate tax rate

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List of Annexes

Annex 1: Balance Sheet Statement during period of 2009 - 2014 (million ￥):

	2009	2010	2011	2012	2013	2014
Current assets	124,606	142,767	199,770	210,918	236,546	259,870
Accounts receivable	63,282	68,809	84,488	90,365	102,301	104,908
Inventories	24,947	27,566	46,748	51,236	54,562	57,321
Cash	36,377	46,392	68,534	69,317	79,683	97,641
Fixed assets	15,047	18,074	27,150	31,670	34,321	37,741
Total assets	139,653	160,841	226,920	242,588	270,867	297,611
current liabilities	82,771	88,776	89,872	93,876	95,657	109,110
non-current liabilities	13,566	16,814	18,146	20,139	22,908	29,954
Total liabilities	96,337	105,590	108,018	114,015	118,565	139,064
Total owners' equity	43,316	55,251	118,902	128,573	152,302	158,547
Total liabilities and owners' equity	139,653	160,841	226,920	242,588	270,867	297,611

Source: Annual Report of Huawei Company. http://www.huawei.com/en/about-huawei/annual-reportunit:million yuan

Annex 2: Income Statement during period of 2009 – 2014 (thousand ￥):

	2009	**2010**	**2011**	**2012**	**2013**	**2014**
Operating revenues	34,777,181	44,293,427	50,567,789	60,234,582	68,674,287	78,230,912
Operating costs	23,004,541	29,492,530	34,523,890	39,123,476	44,290,763	50,239,850
Business tax and surcharges	280,266	415,854	654,872	804,323	998,776	1,148,776
Selling costs	4,395,125	5,312,516	6,387,123	7,564,326	8,498,230	9,687,321
Administrative costs	1,777,554	2,099,715	2,458,732	2,934,857	3,428,719	4,012,434
Finance costs	494,371	1,308,254	2,054,387	2,632,456	3,254,364	3,789,043
Impairment of assets	789,140	419,358	401,232	289,432	204,573	193,405
Total cost	30,740,997	39,048,227	46,480,236	53,348,870	60,675,425	69,070,829
Operating profit	4,036,184	5,245,200	4,087,553	21,111,106	24,383,524	27,991,062
Non-operating revenues	906,133	1,098,296	1,167,894	1,245,324	1,356,890	1,456,498
Non-operating expenses	179,153	81,146	65,487	65,729	54,390	67,435
The total profit(*EBIT*)	4,763,164	6,262,350	5,189,960	22,290,701	25,686,024	29,380,125
Income tax	276,283	350,608	387,698	976,840	1,554,370	1,623,190
Net profit(*EAT*)	1,034,270	3,533,331	2,412,496	13,629,862	11,754,766	4,082,713
Interests	3,452,611	2,378,411	2,389,766	7,683,999	12,376,888	23,674,222

Source: Annual Report of Huawei Company. http://www.huawei.com/en/about-huawei/annual-reportunit:million yuan